

# AMERICAN AGRICULTURIST.



*Agriculture is the most healthy, the most useful, and the most noble employment of man.—WASHINGTON.*

**VOL. VIII.**

**NEW YORK, FEBRUARY, 1849.**

**NO. II.**

MESSRS. ALLEN, EDITORS.

C. M. SAXTON, Publisher, 121 Fulton Street.

THE  
**AMERICAN AGRICULTURIST**  
AND  
**FARMERS' CABINET**

IS PUBLISHED ON THE FIRST OF EVERY MONTH BY

C. M. SAXTON, 121 FULTON STREET, NEW YORK.

JOSIAH TATUM, 50 NORTH FOURTH ST., PHILA.

F. S. SAXTON, 19 STATE ST., BOSTON.

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**WORK FOR FEBRUARY, NORTH AND WEST.**

*Fencing Stuff, Gates, &c.*—If not already done, cut and haul all the fencing stuff you require, mortice and shape the posts, split and point the rails, in readiness to put up as soon as the season will admit. See that substantial gates are made and properly hung at the entrance of every field or yard

on your farm. Cut and pile your summer fuel, if not done before.

**Repair of Buildings.**—Carefully examine your barns, stables, and other out-buildings as well as your own dwelling, and see that all necessary repairs are promptly made. Cover them, if necessary, with Mr. Boyle's "cheap paint," as detailed at p. 225 of our seventh volume; or perhaps, what would be still better, the "American Indestructible Mineral Paint," described at p. 11, of the present volume. If neither of these is not sufficiently economical, a coat of good whitewash may be put on instead.

**Tools, Implements, &c.**—Thoroughly overhaul all the implements, tools, and machines on your farm, and put them in good repair, discarding all bad ones, and supplying their places with those that are of the best quality and new.

**Maple Sugar.**—Prepare for making maple sugar, which should be commenced the latter part of this month, or early in March. See that your sap buckets or troughs are tight and clean, and if you have not enough for the work you have to perform, supply the deficiency by new ones. Put your boilers in order, and arrange them in a manner that will economize in fuel. In tapping your trees, do not make the holes too large nor too deep; neither is it best to tap the trees very far from the roots. Yet the higher the holes are bored above the ground, the more saccharine the juice, and the shorter-lived the trees.

**Dressing Flax and Hemp.**—If you have flax or hemp to break and dress, it should be done this month, for in March you will have plenty of other work to do.

**Care and Management of Stock.**—Continue well to look after your stock. This and the next following, are the trying months for animals, and if well carried through these, you may safely trust them afterwards. Those accustomed to green food a great part of the year, and are now kept upon that which is dry, should have their condition carefully observed. Roots should be provided, more or less, as a change; such as potatoes, turnips, ruta-bagas, mangold wurtzel, beets, carrots, parsnips, &c. Chaff, with corn-cob and Indian meal, may also occasionally be given. Do not allow them to take their drink too cold nor when over-heated with exercise or work. Let them also be carded, brushed, curried, or wiped down with straw, at least once in twenty-four hours. Working animals should invariably have grain, which may be given with chopped hay, or otherwise, and should be fed and watered at regular hours, three times a day. All pregnant animals should have a dry, warm shelter, well littered, and have plenty of nutritious food, but should not be made too fat. If near their time, they should be allowed to remain loose, unmolested, in separate stalls, or pens, and should be aided, when necessary, in giving birth to their young. Swine should have constant access to water, sulphur, salt, charcoal, and wood ashes, in order to thrive. Breeding-in-and-in should not be practised beyond two or three generations, unless the families from which the males and females have descended are very distantly related.

**Poultry.**—Provide your hens with warm, comfortable houses and convenient poles to roost upon;

and if you wish them to lay well, keep their apartments and nests clean. Allow them to have constantly before them plenty of gravel, broken clam or oyster shells, as well as a heap of wood or coal ashes, brick dust, and finely-pounded old mortar, or lime, to pulverize, or dust themselves in. Give them water, boiled mashed potatoes, mixed with Indian meal, and a little fresh meat of some kinds, finely chopped; also grain and the tender refuse leaves of celery, cabbage, &c., and there will be no want of eggs. Turkeys, ducks, and geese should be provided with suitable shelters and pens for laying. They should be daily fed with mashed potatoes, chopped turnips, or cabbage leaves, mixed with Indian meal, and every few days with a small quantity of oats, buckwheat, or Indian corn.

**Manures.**—Take proper care of your stable manure, and see that it is not thrown out of a "hole in the wall," there to lie, and mix with snow, as well as to have all the virtue washed out of it, not only by the rain, but by the drippings of the roof. Erect some kind of a shed over your manure heaps, if it is nothing more than a rude covering made of posts set in the ground, with a roof formed of poles, slabs, thatched with spruce boughs or straw. If you have marl, or muck, in your vicinity, that can be dug at this season without exposure to wet, cart, or sled it into your yard, or fields, in order that it may be tempered by the genial influences of the frost.

**Kitchen Garden.**—Sow early cucumbers in hot-beds, which, if well managed, will produce in April. Celery may be sown in a warm border, and will be ready to vegetate the first mild weather. The directions for last month will apply equally well to this.

**Fruit Garden and Orchard.**—Fruit trees that grow too luxuriantly, and do not bear well, may now be pruned at the roots. Cut away the wood in grapevines which has borne fruit the preceding year, and leave the young wood to bear the ensuing season. If the pruning of vines be left until the sap begins to rise, they will bleed profusely, and, if weak and sickly, they will suffer much injury. Procure grafts and cuttings, and cover them with earth until required for use. Scions may be cut during this month and the next, for grafting, and carefully laid away in a cool place, packed in sand, moss, or clay, till required for use.

**Flower Garden and Pleasure Grounds.**—Finish pruning hardy early-flowering shrubs, by cutting off all dead wood, and straggling or interfering branches, close to the stem or limbs. Keep the gravel walks neat and clean, and roll them after the winter frost.

#### WORK FOR FEBRUARY, SOUTH.

**Grinding and Management of Sugar Cane.**—If you have not completed your cane harvest, finish it according to the directions given in January.

As soon as the black frosts are over, which usually occurs by the last of this month, and the ground becomes sufficiently dry, the covering of the cane that was planted in autumn, or early winter, should be reduced to one or two inches, by scraping, with hoes, the earth from the top of the drills, towards the centres of the spaces between the rows. After this, the hoes followed by the

plows, should be passed through the fields about once in ten days, in order to keep down the grass and weeds. Should the season be so backward as to prevent you from finishing the planting of your cane, it may be done at the close of this month. But do not cover it at a depth exceeding two inches.

**Preparation and Plowing Cotton Lands.**—Employ your hands in cutting up and rolling logs—knocking down cotton stalks with a stick, when not too large—firing log heaps, and burning stumps and brush, clearing up hollows, &c., and be in readiness to commence plowing your cotton fields, as soon as the season will admit. By the latter end of the month, if the weather be favorable, and the ground in proper condition, keep as many plows running as may be convenient.

**Sowing Tobacco Seed.**—If not done before, prepare your ground and sow your tobacco seed, as directed last month.

**Feeding Cows, &c.**—Give your cows boiled cotton seed, with a little corn-cob or Indian meal added. This will give the butter a rich flavor, and a fine color. The seed must be well cooked, which will require but a few minutes. As most of the directions for the management of stock given in the work for the north and west, this month, will apply to the south, it is unnecessary to repeat them here.

**Kitchen Garden.**—Plant seeds of vegetables, as recommended for January, according to the climate and latitude of the place. Also cucumbers, Lima beans, bunch beans, squashes, muskmelons, water melons, pumpkins, Indian corn, beets, leeks, celery, and okra. Plant aromatic and pot herbs; also, at a distance from varieties of the same family, carrots, parsnips, and turnips, intended to produce seeds.

**Fruit Garden, Shrubbery, &c.**—Graft fruit and other trees. Plant cuttings of grapevines, roses, quince, fig, pomegranate, and the various kinds of fruits and ornamental shrubs. Plant Osage-orange seeds for hedges, as recommended at p. 105, vol. vii., of the *Agriculturist*.

#### THE RUST IN WHEAT.

THE following remarks from the Annual Report of the St. John (N. B.) Agricultural Society, as to one of the causes of rust in wheat, are thrown out rather as a supposition than an opinion, with the view of exciting inquiry.

The oat draws nutriment from the earth by side roots, which spread over the ground. The wheat plant has similar rootlets; but in addition thereto, when about to head, sends down a tap root into the earth, for the purpose, it may be presumed, of procuring that additional nutriment which its large, rich ear requires; and this tap root has been known to go down to the depth of four feet. We may observe, that up to the time of sending down the tap root, the wheat is the hardiest and thriftiest of all the cereals, but afterwards, the most liable to disease. This delicacy is accounted for, when we consider that land is generally undrained—that not more than a few inches of soil get the benefit of sun, air, and manure, and that, therefore, the root must encounter, in its downward travel, nothing but disappointment. It comes in contact with the cold clay, or a sour, wet subsoil, turns back in despair,

and dies. In accordance with the laws of nature, insects, or rust, which is itself a fungus, or vegetable insect, come to finish the work of devastation on the dying plant. The forlorn farmer rails at the climate, and cries out that his wheat is killed by rust, while, in fact, it has died from starvation—from the want of that food, which, as a provident husbandman, it was his duty to have provided for it.

#### ADULTERATION OF FOOD.—No. 8.

**Black Pepper.**—This substance, also, is often subject to adulteration, the nature of the materials usually employed for the purpose, merely subduing its strength, and generally are not injurious to health. Such a course, however, is much to be condemned, so in every species of fraud.

The falsification of pepper is not confined to its ground, or pulverulent state; for fraud has taken up a higher position as regards this condiment, than even any other. Factitious pepper corns, it is stated, are made and sold, sometimes alone, and in other cases mixed with those that are genuine, from which, indeed, by their outward appearance, they can scarcely be distinguished. They are made of linseed oil cake, and mustard, with a considerable quantity of clay, and a little Cayenne pepper as a flavoring matter. This fraud, however, is easily detected, as the genuine pepper corns suffer no change when immersed in water, whereas, the counterfeit article, treated in the same manner, fails to pieces.

When purchased in a state of powder, pepper is almost always adulterated by the admixture of substances sold for the express purpose. It is often mixed with the pulverized husks of black mustard obtained at the mustard mill, as well as with the sweepings of pepper houses, which are bought under the name of P. D., or pepper dust. Earthy matters are also often mixed with pepper powder to increase its weight. The faded leaves of autumn and common rice are sometimes finely powdered and mixed with pepper to impart a paler color, in order to suit the taste of the public. In fact, it has been ascertained that the ordinary ground pepper of the shops does not contain more than  $\frac{1}{4}$ th of genuine pepper, or 2 oz. in the pound.

**Cayenne Pepper.**—Genuine Cayenne pepper consists of the pods of a variety of capsicum ground together with equal parts, by weight, of common dry salt; but is often subject to a very deleterious fraud. When exposed to light for any considerable length of time, it always loses the fine bright red color it at first possesses, and therefore becomes deteriorated in the eyes of the purchaser. In order to prevent this, a quantity of red lead is added, which not only causes it to keep its color for a greater length of time, but also adds to its weight, and consequently, to the profit of the vender.

The Cayenne of the shops is commonly a spurious article made by grinding a mixture of any of the reddish woods, or sawdust, with sufficient capsicum pods to give it flavor.

**Ginger.**—This substance, when purchased in a ground or powdered state, is almost always adulterated, in this country, with Indian meal.

**Mustard.**—The substances employed in the adulteration of this condiment, it is believed, are not

generally injurious to health, having only a tendency to weaken the pungency, or strength of the material. For this purpose, Indian meal, wheaten flour, bean meal, and linseed cake, ground very fine, with tumeric powder as a coloring matter, are frequently used. The mineral substances employed are yellow ochre, and it is said chromate of lead, in small quantities, in order to give a bright yellow to the mustard that has had much colored vegetable matter, as linseed meal, added to it.

The powdered mustard of the shops is most frequently adulterated with wheat flour. When this is the case, it does not readily make a smooth paste with water, but exhibits considerable toughness, and a somewhat stringy appearance. The proportions commonly employed by some grocers are—common dry salt, wheaten flour, and superfine mustard, equal parts, colored with tumeric, and sharpened with Cayenne pepper.

#### THE COW—HER DISEASES AND MANAGEMENT— NO. 9.

**Grain Sick.**—This disease is caused by improper feeding, in allowing the animal too great a quantity of grain at one time, particularly those which have been subject to the process of distillation.

The first symptoms are a dull, heavy appearance of the eyes of the animal; she frequently shifts about from one side to the other, and when she is let loose and driven about, she complains or grunts more or less. On examination, a fullness may be perceived between the hip and ribs, on the opposite side to the milking one, if pressed down with the hand. This fullness is produced by the extension of the stomach.

Bleeding and purging are believed to be the only remedy; the first to relieve the urgent symptoms—the second to remove the cause of the disease. The quantity of blood to be taken away may vary from three to five pints; after which, the following purging drink may be given, milk warm, at one dose, in two quarts of water gruel, and half a pint of molasses:—

Sulphur, from 9 oz. to 1 lb.; grains of Paradise (cardamoms), 3 drachms; saltpetre, 1½ oz.; tumeric, ¼ oz.; cummin seed, ¼ oz.

When it has fully operated in unloading the stomach, the weakness of the organ, the loss of appetite that ensues, and the deficiency of milk connected with it, will be repaired by medicines of an aromatic and bracing nature; like the following prescription:—

Gentian, cummin, coriander, valerian, and anise seed, each, ¼ oz.; grains of Paradise, ¼ oz.; flour of sulphur, 1½ oz.

To be mixed, and given at one dose, in a quart of mild ale or beer, after having previously boiled it with a handful of chopped rue. This should be given when warm, and repeated once a-day, or every other day, till recovery takes place, which usually happens in a few days.

The regimen should consist of diluent liquors and mashes for some days after; and grains are entirely to be given up till the stomach gains its former strength and tone. They are then to be given with caution in order that no relapse may ensue.

**Losing of the Cud.**—This malady arises from a

relaxed state of the bowels, and the accumulation of food in the first stomach, which, in not being able to be returned by the cow into her mouth, does not undergo the secondary process of chewing, so essential to the preservation and maintainance of health.

This disease readily yields to the treatment recommended in "Grain Sick," first by purging, and then bracing up by tonics, diluent washes, &c.

**Hydrophobia, or Madness.**—This disease arises from the bite of a dog, or other animal affected by madness, or rabies. Although it is regarded as incurable, it is proper to know its symptoms. These are a constant lowing and distress of the cow, a great flow of froth from the throat and tongue, with the breathing somewhat irregular; the malady at last breaks out into an ungovernable frenzy, or madness, and the loss of power over the voluntary muscles extends throughout her whole frame, and in four or five days from the commencement of the disease she dies.

The cow, as well as the hog, the sheep, and the horse, does not appear to be able to transmit this malady by biting, like the dog, the cat, the wolf, and the fox.

**Wounds by Goring, or Pokes.**—Cows, when they get together in the yard, or elsewhere, are liable to be gored by each other in different parts of the body, especially if any one of them is wounded, and they see or smell the blood. This renders them furious, and they fight and poke at each other with their horns.

The treatment of all such wounds is to be conducted, first by endeavoring to stop the effusion of blood, either by styptics, by pressure (binding up), or else by sutures, or stitching of the part. The styptics commonly used consist of

Oil of vitriol (sulphuric acid), and brandy, each, 1 oz.; or common salt and nettles, a handful each.

To be beaten together in a mortar till it becomes a pulp, and then placed on the wound. If not sufficient to stop the blood, it may be assisted by pressure or a bandage; if it still fails, and should the situation admit of it, the lips of the wound, or the divided skin, may be brought together with crooked needles or pins specially made for the purpose. When this is done, everything is to be left for the first twenty-four hours, in order that the blood vessels may collapse, and a further effusion of blood may be prevented. At the end of that time, the wound should be dressed.

In case the external opening of the wound is confined and the gore very deep, a small candle should be thinly wound round with flax or tow; and after it has been well soaked in the following balsam, and dipped in the digestive ointment prescribed below, it may be conveyed into the wound and there left:—

#### WOUND BALSAM.

Take compound tincture of myrrh, 4 oz.; cold drawn linseed oil, ½ pint; spirits of turpentine, 4 oz.; and mix well together.

#### DIGESTIVE OINTMENT.

Take common turpentine, 8 oz.; spirits of turpentine, 4 oz.; linseed oil, 2 oz.; and mix over a slow fire.

The swelling is then to be rubbed once a-day with the following stimulant oils:—

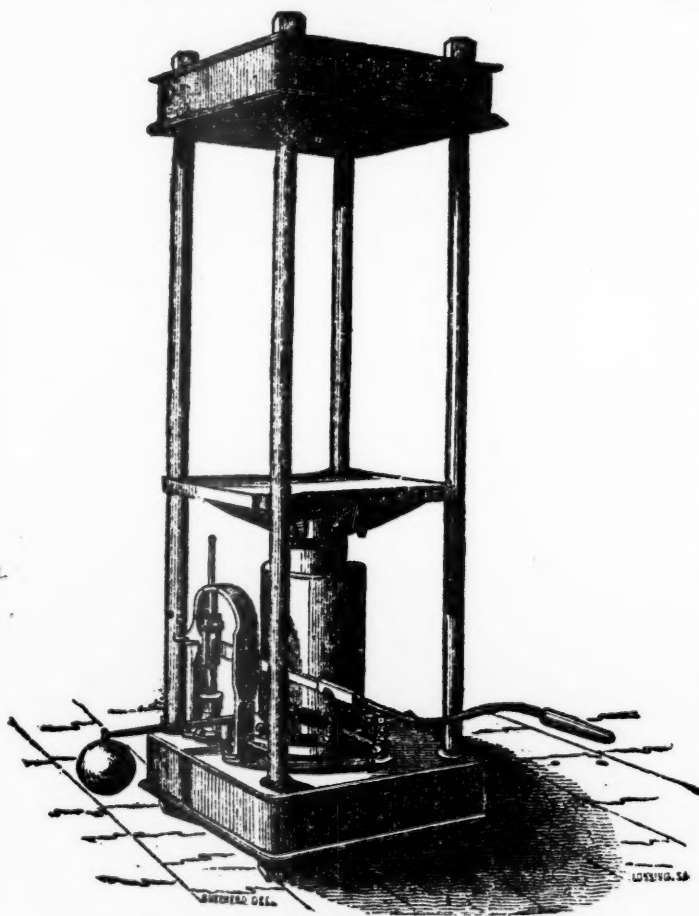
Linseed oil, 8 oz.; oil of turpentine, 2 oz.; oil of vitriol, 1 oz.

The last-named article is to be gradually mixed with the other two. The application of this will prevent any tendency to mortification, and also produce a quick suppuration, or running of the sore. These dressings may be repeated every twenty-four hours. If the parts are much swollen and inflamed, a dose of Epsom salts may be given, and the following fomentation used once a-day:—

Camomile flowers,  $\frac{1}{4}$  lb.; wormwood, a large handful; bayberries (*Lauris nobilis*), and juniper berries, each 4 oz.; beer, or ale grounds, 6 quarts; vinegar, 1 qt.

The whole to be boiled for a quarter of an hour, and then to be applied, while quite hot, by dipping in it a large piece of flannel, and fomenting the inflamed parts. When this operation is finished, the flannel should be allowed to remain, and the animal covered up so as to avoid catching cold.

#### HOE & CO'S HYDRAULIC PRESSES.



HYDRAULIC PRESS.—FIG. 4.

THESE machines are constructed of various sizes, with solid wrought-iron cylinders, and may be made to work by steam power, with one or more pumps. The uses to which they may be applied are numerous, among which we would particularly mention the pressing of hay, wool, cotton bales, separating the oil from lard, flaxseed, castor beans, and other oleaginous seeds. They may also be employed with advantage in many instances in raising or moving buildings and other great weights.

Price with 8-inch ram, a single pump, and platine (follower), 38 by 26 inches, \$800; 10-inch ram, pump, and platine 40 by 28 inches, \$1,000; 12-inch ram, pump, and platine 46 by 32 inches, \$1,250. Separate cisterns, \$50 extra. Larger and smaller sizes made to order.

#### REVIEW OF THE NOVEMBER NUMBER OF THE AGRICULTURIST.

*Preservation of Cabbages.*—I was strongly tempted to drop one *b* in that word, as I often am disposed to do in all superfluous letters in all words. If printers would set the example, it would soon become a law. But about preserving cabbages. You know, or rather you don't know, I am a Dutchman. For the last fifty years I have always wintered my cabbages upon the same ground where they grew. I pull them up, and set them bottom up in a row on the ground; and then ridge up the earth on each side, leaving the roots sticking out, and whenever the ground is not frozen, I can go and pull out a few and take into the cellar for immediate use. This is the easiest and best way I ever saw cabbages kept.

*The Cow—Her Diseases and Management.*—I was much amused the other day with a little matter connected with these articles. A neighbor of mine, whom I had tried to induce to subscribe for the *Agriculturist*, had a cow taken sick, and, while in that condition, a pedlar happened along with "a new and valuable work," for which my friend paid a dollar, and got a recipe to cure his cow. But it did not answer. He then came to me for further advice. On referring to one of your back numbers, I easily found a description of the disease, and a remedy, which proved effectual. At this he seemed very much surprised, and immediately ordered the paper, declaring it worth a dozen of his "new book;" and that he had no idea that it contained anything of any use to him.

*Improved Rotary Cylinder Straw Cutters.*—It actually seems as though there was no limit to the improvement of agricultural implements. The invention of any machine is only the beginning. Some ingenious Yankee immediately takes up the idea, and adds an improvement, which has hardly got well out of his hands, before some one else seizes it and adds another. So it has been with the straw-cutting machine for the last twenty years. Although this last improvement seems to be the *ne plus ultra*, it is impossible for one to say but what it may be still further improved—I can't tell how.

*Improved Refrigerators.*—A friend of mine, at the south, where he can grow rice, but not ice, writes me that he has carefully examined into the philosophy of this plan and is well pleased with it; but deprecatingly asks how he can be benefited by it. Wait a bit. Never despair while there is anything left that Yankee ingenuity has not done. Be assured, in due time it will be done. The "ice-making machine," is already invented. *Ice made here at all seasons*, will soon be seen upon sign boards in every town. "Tom, run to the

refrigerator, and get one of those turkeys killed last fall—and, mind, bring some of that three-year-old butter—these things are all better for age,” will soon get to be common expressions. And why not? This is an age of wonders. And an improved refrigerator, with ice made on the spot, may yet serve to keep my South-Carolina friend cool.

*Apple Orchards.*—So, so, I am to be set down as an ignoramus, ha? because I continue to grow apples. Native fruit, of that universal variety known as “five to the pint?” Well, I can tell you what it is, sir: the “five to the pinters” are strongly in the majority. And nothing that you, or I can say, will change them. This sort of people never read. “People who pay attention to their fruit trees are sure to make them bear.” That is the difficulty. Too many persons, particularly in our new settlements, pay no attention to getting trees, and half those who do, pay no attention to them afterwards. They seem to imagine that they must pay attention to everything else rather than the orchard. The best use that can be made of all the leached, or spare ashes, about the farmhouse is in the orchard. They contain a part of the natural aliment of trees, besides the benefit of preventing worms and insects harboring around the roots when they are freely used. “Shrewd men, who raise fruit for sale, now generally select one, two, or, at most, three or four kinds, &c, and confine themselves entirely to these.” Just so do just such men who are raising apples for their own use. It is all well for amateurs, or nurserymen, who have time to devote to the business, to multiply varieties; but for the plain, small farmer, three or four kinds of good apples are sufficient, so that he has plenty of them. At any rate, an excellent assortment for family use can be had in seven or eight kinds.

*Ventilation Essential to Health—and Hints for the Preservation and Maintenance of Health*—although from different pens, must have been operated by the same current of magnetic fluid. Reader, will you turn back and look at those articles again? Read them once more and act upon them.

*Use for Corn Husks.*—Why that is not half their uses. My grandmother knew of several others a hundred years ago. I can recollect in those days, when it was not so very convenient to run to the store and buy a scrubbing brush to scour the kitchen floor, that she had some auger holes bored through a block or board, and bunches of corn husks drawn in, and this being fastened to a long handle, made an excellent scrubbing brush. A bunch of husks, tied together neatly, makes a very nice hearth brush. And, certainly, a horse collar made of corn husks is cheaper and better than a leather one. I could go on for a long time, but this will do for one husking.

*Texas Wheat.*—There is no difficulty in raising wheat in Texas, nor any other southern state. It is more difficult to preserve it after it is raised, from the weevil. If it were not for this pest, no doubt there would be much more wheat grown at the south. I should like to know if the wheat growers of Texas are not troubled with weevils.

*Agricultural Botany.*—I am much pleased with

the remarks of this writer upon Dr. Darlington's excellent little work; and as but few seem inclined to buy and read the volume, I don't know of anything better that can be done than to make the extracts proposed.

*Adulteration of Food—Tea.*—It is not very surprising that people will continue to drink this beverage. A good cup of tea is invigorating to the weary soul. But it is almost past belief that the American people will continue to pour down their throats a vile decoction of such infamous drugs as are sold to them under the name of tea. It seems to me that the only sure way to avoid being poisoned, is never to touch anything sold that goes by this name. But as people will continue to drink, and I among them, my advice is, to drink none but black teas.

*Chocolate.*—As to this, the more grease and corn meal, the better; for it never was fit for anything but the hogs.

*Rough Notes by the Way, No. 3.*—The idea about laying boxes in a henhouse is well worth remembering. I shall surely profit by it. Reader, perhaps you might also. Pray turn to the article and see.

*Buckwheat Cakes.*—“The griddle should never be greased.” Your readers have been told that “long time ago.” And now the direction to use a little beeswax once a day, is better than all this soap, sand, and salt.

*Small Pox in Sheep.*—I should like to know whether this small pox in sheep is of the same nature as that which afflicts the human family, and liable to become a human malady? [It is stated to be analogous to it, but whether it is contagious to man we have no means at present of knowing.]

*State of Agriculture in Morris County, N. J.*—This is one of that class of plain, common-sense sort of articles that I always read with pleasure. But the greatest thing about it is, the plain manner that it shows the advantages of having facilities for the farmer to communicate with the city. The “gude housewife” will, of course, send her milk to market whenever she can realize two cents a quart, because that is the most profitable disposition that she can make of it. But if there were no railroad, how could Mr. Smith dispose of his milk as he does? And yet, notwithstanding the manifold advantages of these great channels of communication, the farming community are the last persons to favor their construction, and in numerous cases they are the most strenuous opposers. They are not even willing to make good common wagon roads. Many of them seem to think that “road tax” is little better than robbery. If not too late, I would say to W. D., that lime mixed with the earth he speaks of, would undoubtedly prove beneficial. In fact, wherever woody fibre abounds, or sourness, as is almost always the case in earth from swamps or ponds, lime will be found beneficial. Ashes mixed with such earth will also prove advantageous, though in a less degree. Write again, friend W. D.

*Which is the Most Profitable Breed of Sheep*—is a question often proposed—never solved. This is from an English paper, but is as *appropos* to this as that country. And the reason that it cannot be

solved is, because, that in different places, different breeds are best. Yet how often do we see long articles written to induce others to believe that this or that particular breed, which the writer happens to own, are most decidedly the only kind that ever ought to be kept by everybody else. This, however, does not appear to be the object of the writer of this article. On the contrary, it is a very sensible one, and well worthy the attention of the sheep farmers of the United States.

*The True Principles of Farming.*—This is another English article. But the ideas are equally well adapted to the United States. But of all difficult subjects ever undertaken, the writer who should undertake to write a work, in which he would lay down the "true principles of farming," would find his task the most difficult. No theory nor principle could be offered but it would find opponents. Almost every farmer, particularly if he is one who never reads any work upon the subject, thinks that he conducts all his operations upon the true principles. It would be as difficult to make a work giving the true principles of farming, as it would to decide what is the best breed of sheep. The true principles in Maine, would hardly do in Louisiana.

*The Arracacha vs. The Potato.*—Aha! Something new, is it? No doubt, to many of your readers it is not only new, but is all Greek. And in vain will they search a Lexicon or Encyclopædia for a definition. And yet, new as the word may be to many, it is more than twenty years since Baron de Schack, a celebrated botanist, undertook to introduce the cultivation of this root into the United States, as an article of human food.

In the year 1827, the arracacha was growing in great perfection at Cantonment Brooke, in Florida.

In 1828, the late William Prince had thirty plants growing in his garden at Flushing, Long Island.

In 1829, Dr. Mitchill says that he had received a few roots from Caracas, which lived through the winter in a hothouse, and died next summer in the open ground. Dr. M. was of opinion that the cultivation would never prosper in this country, unless in the extreme south.

In 1831, Gideon B. Smith, of Baltimore, sent a lot of roots to Boston. He also planted them at Baltimore. In South America, it is called by the name of *apio*, which is also the Spanish word for our common garden celery.

No doubt, it is a valuable esculent, yet it can never take the place of the potato; for it will not keep in an eatable condition after it is dug, but a few days. In August, 1831, Mr. Smith was of opinion that the root could be cultivated as easily as the sweet potato, and in March, 1832, he thought that it would be quite as easy to cultivate it as the parsnip, he having succeeded well in preserving it through the first winter. But it did not finally succeed.

About the same time, Mr. Legare, of Charleston, to whom Mr. Smith had presented some roots, had one of them cooked, and found it to taste like the potato and celery combined. He, too, failed, as I presume all others did.

From all this and much more "experience," it

seems to me that the arracacha, is hardly worth much more experimenting upon. I have full faith that the potato will yet recover from its present malady, and that no other vegetable can fill its place. Though, in the mean time, I shall be pleased to see experiments tried with anything that bids fair to serve as a substitute. I have only given a little arracacha history, so that people may not be tempted into expensive experiments, under the supposition that it is something "new under the sun."

*Rag Weed.*—"It has been stated, on what authority we know not, that land, on which rag weed grows, is not suitable for wheat." Certainly. If it is growing on the land, it is not suitable to sow wheat on. But give the land a first-rate plowing and turn the rag weed about ten inches under, and my word for it, if the land is otherwise suitable for wheat, the rag weed will not be much in the way.

*The Florida Everglades.*—The project of draining this vast body of land is one that ought not to be lost sight of. But why give the land to the state? The general government own the land, and have the power, and the interest is theirs, and that is the proper authority that should immediately set about this great work. The increase in the value of their own land would more than pay all the expense.

*Milking Cows.*—"This is a subject of too much importance to be passed over." Yes it is. And if the writer means to leave the impression that he would prefer to have cows milked three or four times a day [unless they are giving an extraordinary quantity, say twenty to thirty quarts], I should like to have him pass over my cows entirely. I must repeat, that I can see no benefit arising from so often milking. Regularity in time of milking, and by the same person, as much as possible, is always advisable; but unless the cow naturally secretes so much milk that the udder is unable to contain it through the day, it is idle to be pulling at the teats three or four times during that time. And in winter time, if we have a cow that will carry all the milk she will secrete for twenty-four hours, I do not believe that there is anything gained by milking more than once in that time.

*How to Keep a Horse from Straying,* should have been entitled "How to hitch horses on the prairie." The plan is an ingenious one, and it reminds me to tell you how to make a baulky horse pull. If one horse of a pair is baulky and the other is true, tie a cord to the tail of the baulky horse and to the doubletree, so that he must go ahead and keep his end up even, or have his tail badly pulled, and my word for it, he will go ahead after getting one or two good jerks.

*A Day to Myself.*—Ah! this reminds me that it is full time that I was taking a night to myself. And so another monthly farewell from your

REVIEWER.

**How to PRESERVE EGGS.**—Take 8 quarts of unslacked lime,  $\frac{1}{2}$  lb. of common salt, 2 ounces of cream tartar; mix in water so as to bear an egg with its top just above the surface; pour the mixture into a water-tight cask containing the eggs, and they will keep good for two years.

## DISPOSAL OF THE FILTH OF PARIS.

From an intimation in our last number, we fulfil our promise in copying the following judicious remarks on the "Filth of Paris," from Mr. Colman's late volume on European Agriculture, which will apply equally well to the large cities of the United States, as to those of France;—

There remains one establishment to be spoken of, directly connected with, and of great importance to, agriculture, as well as to comfort and health; but which, having no other than a disagreeable interest to many of my readers, I forewarn them at once to pass it over; though a French writer humorously observes, that "a book written upon assafœtida is in itself no more offensive than a book written upon roses."

This subject considered in a philosophical and practical view, is of the first importance. It would be altogether a false, in truth, a mere affectation of delicacy, to hesitate to treat it as its importance demands. In all the arrangements of Divine Providence, nothing strikes the reflecting mind with more force than the beautiful circle of mutual dependence and reciprocity in which everything proceeds; so that the humble elements perform their part, and the most elevated and brilliant can do no more; and the part of the former is as essential to the common well-being as that of the latter.

Look at a heap of manure, composed of every offensive substance which can be congregated together, reeking with detestable odors, and presenting a mixed mass of objects utterly disgusting to the touch, the smell, and the sight. Yet this is the food of the vegetable world; containing all the elements of richness, nourishment, health, and beauty. All these, the plants know how to separate, to analyze, to digest, and appropriate, and with a skill distancing the sagacity of science, they will return it purified, and sublimated in bread and wine, and oil; in flowers of exquisite coloring and beauty; in perfumes the most odorous which nature's toilette can furnish; in fruits luscious to the taste; and, above all, in products indispensable to life, and full of health and strength. The farmer, standing in his barnyard, knee deep in its offensive accumulations, may proudly say, "Here is the source of my wealth; that which has fed my cattle shall now feed my crops; that which has given fatness to my flocks shall now give fatness to my fields." A mysterious power is ever operating in every department of nature; suffering nothing to fail of its use; "gathering up the fragments, that nothing be lost;" and providing for the various wants of the infinitely-varied forms of life, to which existence has been given, and from whom, if the Creator should, for one second, withdraw his guardian care, the whole must instantly perish.

The refuse of a city may be considered as of at least five different kinds; first the ordinary refuse of a house, such as fragments of vegetables, remains of food, bones, rags, and a thousand miscellaneous and nameless substances; second, the remains of fuel, such as ashes and soot; third, the refuse of different trades, of workers in leather, workers in bone, workers in horn, soap boilers, glue manufacturers, workers in hair and in wool, sugar refineries, and the innumerable other trades always to be found in the busy hive of a city;

fourthly, the dung of the domestic animals, cows and horses; and lastly, human ordure, or nightsoil. I shall say little of some other substances, which have been used for purposes of manure; but it is well known that many graveyards have been ransacked for the purpose of gathering up their mouldering relics, and that many hundreds of tons of human bones have been transported from the field of Waterloo, to England, for the purpose of enriching the cultivation. It cannot be denied in this case to be a more rational, humane, and I will add, Christian use, than that to which they were put in the bloody arena, where they were first deposited.

In Paris, every species of refuse is husbanded in the most careful manner. No refuse is allowed to be thrown into the streets after a very early hour in the morning, nor until after ten o'clock at night. This refuse consists of what may be called the house dirt, and is laid in heaps in front of the houses near the gutters. A very numerous class of people, called *chiffonniers*, consisting of as many women as men, with deep baskets on their backs, and a small stick with a hook at the end, carefully turn over every one of these heaps, selecting from them every article of bone, leather, iron, paper, and glass, which are thrown at once into their baskets, and being carried to their places of general deposit, are there again examined and assorted, and appropriated to any specific application for which they may be suited. These persons appear like a most degraded class; they inhabit particular quarters of the city, and the interior of their habitations is such as might be expected from their occupation. The profession descends in families from father to son, and from mother to daughter. They are a most industrious race of people; and many of them may be seen, even at midnight, with their lanterns, taking advantage of the first pickings, and anticipating the labors of the coming morning; and with the earliest dawn they are sure to be found at their tasks. No article of food escapes them; and they call the street their mother, because she often thus literally gives them bread. Though their occupation is necessarily dirty, yet they are almost always comfortably clad, and are never ragged. They never beg, and disdain to be considered objects of charity. They are licensed by the city authorities, for which some trifling sum is paid, and for which they must be recommended for their sobriety and good conduct. They have their particular districts assigned them, and are very careful to prevent all foreign intrusion.

The *chiffonniers* having done their work, next come the sweepers and collectors of dirt. Every inhabitant of Paris is required, under a penalty, to have the sidewalk in front of his place of business or residence carefully swept every morning. The sweepers of the streets in Paris are almost universally women, who, with long twig or birch brooms, sweep the streets thoroughly, and all the accumulations are taken in carts to be transported to the great places of deposit. The women assist as much in loading the carts as the men. These women appear to work extremely hard, carrying always a long broom in their hands, and a shovel fastened to their backs, to be used as occasion may require. The gutters in Paris are washed out every morning, by fountains which are placed in

every street, and what these sweepers are not able to collect for the carts, they are careful to sweep into the drains leading into the common sewers. I have looked at these people and at the chiffonniers often with great interest; and, filthy and disgusting as their occupation necessarily is, I have always felt in my heart a sincere respect for persons who, poor as they are, would be ashamed to beg; and who, by the severest and most useful labor, are proud to obtain for themselves and their families, though a very humble, and honest living. All this refuse is transported to places appropriated for its deposit, where it remains until it is decomposed, and is then sold to the farmers for manure.

#### ADVANTAGES OF THOROUGH DRAINING.

DRAINING, as understood thirty years ago in England (and to this day with us), merely meant the making of channels to carry off surface water, and underground drains, to dry bogs, or cut off springs. It has now an entirely different meaning in the agricultural world. Mr. Smith, of Deanston, near Edinburgh, was among the first to practice and explain *Thorough Draining*, as it is called. His system is, that *all* land requires to be drained—that the depth of loam, or soil, containing the food of plants, seldom exceeds a few inches, resting on a subsoil, or pan of clay, or hard gravel, saturated with water. By making drains from two and a half to five feet in depth, at every twenty or thirty feet, the land becomes dry; air takes the place of water; every shower furnished with a stock of ammonia, permeates the soil, and the result is, that instead of a few inches there are as many feet of fertile loam, the action of the atmosphere being sufficient of itself to produce the change, although, to hasten the process, subsoil plowing is made part of the system.

The change produced by the introduction of thorough draining in Britain, is said to be truly astonishing. Not only has the produce been greatly increased, but wheat and turnips have been grown at elevations, and in districts, where their cultivation was not before thought possible. By it, crops have been rendered less liable to disease, and harvest has been forwarded nearly a month. This will be better understood, if we reflect, that when water is allowed to remain in the soil until removed by evaporation, the heat of the sun and air, instead of being imparted to the land, will actually, through this process, produce an intense degree of cold. On the other hand, were the soil so dry as to allow the rain to pass through, it would imbibe heat from every ray that fell upon it.

The British government has considered this improvement of so great importance, that, during the last three years, large sums have been loaned to all applicants, to be expended in drainage, under the superintendence of inspectors. These loans are repaid by annual instalments of  $6\frac{1}{2}$  per cent., for about twenty years; and as the money is borrowed by government at three per cent., these payments cancel the loan and interest.—*Robert Jardine.*

THREE PRINCIPAL ELEMENTS OF PRODUCTIVE FARMING.—Labor—capital—intelligence.

#### CISTERNs AND MATTRESSES—ANSWERS TO REVIEWER.

In answer to Reviewer, I would state, that it is of the western counties of Mississippi I generally alluded to. The water even now in general use is limestone, hard, and taken mostly from springs, but sometimes from bayous and wells. No cistern with which I am acquainted, has had an unpleasant odor. I have two, my son-in-law, one, two brothers-in-law, one each, and there are others at Edward's Depôt—all in this neighborhood. I have drank from perhaps 50 to 100 others in this part, five years. I have heard complaint, of bad odor, but it was where the pump was used, yet others who use pumps deny this to result from their use. All of us around here catch water, winter and summer, and as regards ice, generally we never think of it, our water is cool enough; and if care be taken so as to cut off all water after cold weather, some think the water will be cooler; but I think all is owing to the situation; because the coldest water from a cistern that I have used was from one situated north of the house, perfectly shaded nearly all the day. I think the use of ice has done more injury than tea or coffee, my friend, Reviewer, to the contrary notwithstanding. If a body was able to get fixed rightly, before he died, or got rich enough not to need comforts,—I would have my water all filtered as it entered the cistern. In catching water at all seasons, there should be one or two small perch (fish) put in, to eat the embryo mosquitoes. Do not put more than that, as it will not be necessary. I put five or six in mine, but all died to one, and that was larger than twenty or thirty of those I put in, it had grown that much in three years. If you do not put in the fish, you will have to strain the cloth.

I have just this moment thought of a cistern of water spoiled by putting in a half bushel of lime to correct the odor,—the only case I ever heard of. And Reviewer heard of it, too. The dashing of the bucket when let into cisterns will to a certainty keep water pure; four or five years experience warrants me to speak "advisedly."

Reviewer is afraid of your readers tiring. No sir; although they know you not, yet your reviews are conducted with such good feeling, that I guess, your writings are a plaguey trouble,—when, they are not in each No. For one, I regret your absence, and always look for Reviewer the first thing.

Unless I am greatly mistaken, Reviewer has slept on as good cotton mattresses as of any other kind. I have used moss, wool, cotton, hair, shucks and cotton mixed in layers; and really as regards the luxury of a good sleep, I would as leave have cotton as any, and it is much preferable to moss. I have used no other beds for eighteen years winter and summer but mattresses, and from the urgency with which I appealed to my fellows to try cotton, a gentleman in ridicule dubbed me the "Knight of the Cotton Mattress." He was an editor, and abused Reviewer and my humble self most roundly—but since he has acted most nobly, made amends by approving the exertions only made for the good of the whole. I know no man, north, south, east, or west, who has as much right to stick to the cotton mattress, I

have used them for the greater part of eighteen years, and have tried all others. Besides this, I have had city and town gentry, who were unwilling to believe that cotton could make such beds, and insisted nothing else but hair could—in one instance I had to demonstrate, by showing the cotton. The only objection is coldness in the winter to invalids of delicate habits, but the same objection was to hair, and greater to moss—but easily obviated by putting a blanket under the bottom sheet. But cotton mattresses are not the only comfort, in cotton, there are many such things as comforts, made about this house, with eight to ten-cent calico, two to three pounds of cotton crushed into bats,—they are really more comfortable of a cold night than the best Mackinaw blanket.

M. W. PHILIPS.

Edwards, Miss., Nov. 17th, 1848.

#### ROUGH NOTES BY THE WAY.—NO. 6.

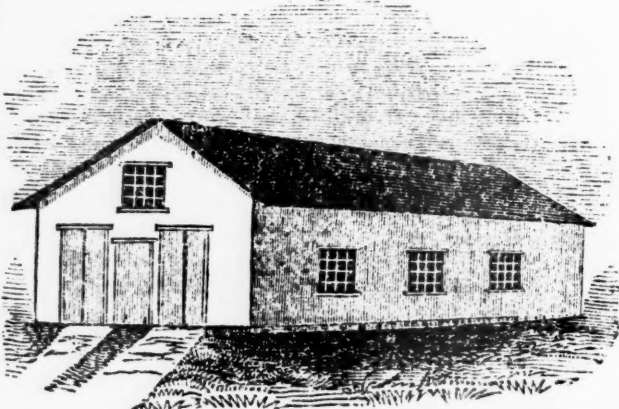
On my return to Philadelphia, after visiting the estate of Mr. Maillard, I found a carriage waiting to take me to the farm of Captain Harry Ingersoll, of the U. S. Navy, which is situated in Bristol, about seven miles from Philadelphia. This farm contains about 70 acres, and when purchased by Captain I., three years ago, was completely run down by improper cultivation—the buildings greatly out of repair, and nearly worthless. But now, from the appearance of the buildings, vegetable and flower gardens, as well as the meadows and fields, one would judge that the place had been under high cultivation for some years. This, however, may be accounted for, so far as the pleasure grounds and flower gardens are concerned, from the superior management and good taste of his lady, Mrs. Ingersoll.

A very handsome and substantial dwelling has been built by Captain I., of his own planning, unique in its character, and harmonizing well with the beautiful woodland scenery surrounding it. A quarry, near the site where it stands, furnished the stone for its erection. In the hole, or pit, from which the stone was taken, an ice house and a beautiful conservatory have been constructed. "killing," as it were, "two birds with one stone." There is one object near his mansion, though seemingly too trivial to mention here, which I think worthy of note. Around an old chestnut stump, very large in its dimensions, there has sprung up a cluster of sprouts, some six or eight inches in diameter, which, in number of treelets, and in the picturesque effect of its arborescent head, surpasses anything of the kind I have ever seen.

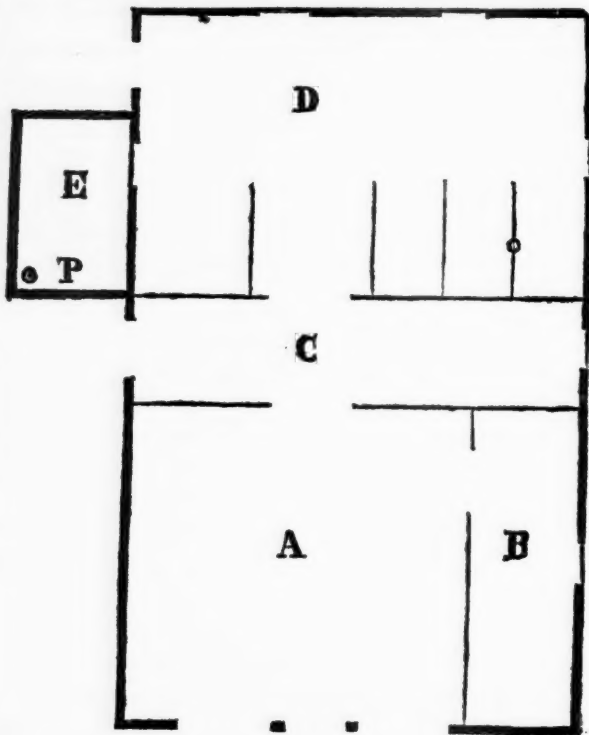
I also found a water ram in operation here, which forces the water up a steep hill to the upper stories of the house, and over that part of his grounds where he wishes to use it. It is very singular that water rams have not been as common for ages past as a well or cistern. There are few things more convenient or useful, where water is to be taken up an ascent, or carried any distance on level ground.

A little to the southward of his house, Captain Ingersoll has erected a neat, though plain-looking horse stable and carriage house, which, from its convenience, as well as internal arrangement (being

also of his own planning while on ship-board), I have thought well worth the trouble to sketch and get engraved for the Agriculturist.



NORTH AND WEST VIEW FROM THE HOUSE.—FIG. 5



GROUND PLAN.—FIG. 6.

*Explanation.*—A, denotes the carriage house, 21 by 22 feet; B, the watchman's room, 8 by 21 feet; C, the passage way, 6 by 30 feet; D, the stable for horses, 18 by 30 feet, containing six stables; E, the shed, covering the pump and manure pit; P, the pump.

Over the manure pit, is a sort of rough grating, made in two pieces, so as to be easily lifted off when the pit is to be cleared of manure, on which the straw is also kept, that has been used for bedding during the night; thus affording a circulation of air under it; and being sheltered from the rain by the shed, a considerable quantity of litter is saved, besides the necessity of keeping it in a spare stall.

The hay is taken into the loft through the north window above the carriage-house doors; and the straw through another window at the opposite end of the stable.

In the loft floor, there are two scuttles, about 3 by 5 feet each, one over the passage way for throwing down hay, and the other over the stable through which is dropped the straw; these also serve for ventilating the passage way and stables.

At the south of the stable, there is a paddock, or yard, about 54 by 100 feet, but not large enough, either way, to get up a run, where the horses are usually turned out after coming in from a drive, to roll in, and let off the fumes of their bodies, instead of filling the stable with foul air.

Captain Ingersoll has spared no pains in cultivating his lands, having tried several experiments with marked success. The past season, he applied a quantity of guano, the effects of which I detail below, with the view of encouraging others to follow his example, and it is hoped they will make known their results.

To an underdrained meadow, containing 3½ acres, which was considered as run out of grass, not yielding one fourth part of a crop in the summer of 1847, he applied broadcast, on the 4th of April last, 300 lbs. of Peruvian guano, per acre, mixed with an equal weight of plaster. The result was wonderful. On the 15th of June, he began to cut his hay, and the Timothy was as thick as a good mower could move steadily through.

SAMUEL ALLEN.

New York, Jan. 10th, 1849.

AGRICULTURAL TOUR SOUTH AND WEST.  
NO. 2.

I THINK the close of my last letter left us at St. Louis. The importance of the trade of this western town may be imagined from a view of the quay. For nearly a mile, the shore is crowded with large steamboats, lying so thickly that only bows reach the shore. At this season, most of the New-Orleans boats go down with decks crowded with fat cattle, cows, calves, sheep, hogs, fowls, and horses, and with holds full of flour and grain, while every space on the decks and guards, is piled up with bags of corn, oats, and wheat.

The freight of cattle from St. Louis to New Orleans is \$6 a head. Among the hundreds that I saw shipped for beef, I did not see one that would have sold for that purpose at one fourth the usual price, in the New-York market, except, perhaps, some young steers. The sheep were better; some of them really good mutton, though all of them of a small size. I do not think I saw any that would exceed twenty pounds to the quarter; generally not fifteen pounds.

From St. Louis to Vicksburg, my place of debarkation, there is but very little to interest the traveller. The weather was gloomy, and a great portion of the shores of the Mississippi River are still in a wilderness condition, or in a most primitive state of cultivation. Between St. Louis and the mouth of the Ohio River, there are miles of rocky shore, towering in beating cliffs high in the air, and in places almost perpendicular from the shore. But below the mouth of that river, no rocks nor high lands are seen, except in four or five places down to the gulf. Memphis, Vicksburg, and Natchez are the most prominent of these points. It is in consequence of this liability to overflow, that we see but few villages on the banks of the

river, and nearly all the residences are very primitive-looking log cabins, with farms to match. Most of the settlements were made for the purpose of cutting wood for steamboats; the price of which is from \$1.50 to \$2.25 a cord; and is mostly cotton wood. The price of chopping, splitting, and cording, from fifty to seventy-five cents. Owing to the vast number of *snags*, few boats venture to run nights, except in bright moonlight.

On the 15th of November, below Memphis, the green foliage began to tell that we were rapidly getting into a warmer latitude. One of my travelling acquaintances of this passage was an intelligent gentleman of the name of Weston, who had spent two years in the Rocky Mountains and New Mexico, for his health. He passed seven months with a "mountain man," who took a lot of tame goats, so trained as to follow the mules, into the mountains, for the purpose of catching lambs of the Rocky-Mountain sheep. He succeeded in catching quite a number, which he reared with his goats; carrying them while small, in hampers on mules' backs. His design was to bring them into the United States; but Mr. Weston subsequently learned that all of them died before they came to maturity.

These animals, though called sheep, are very unlike our domestic animals of that name. They have horns which give them the name of "big horns," and they are covered with long hair instead of wool. Though Mr. W. tells me, that in winter, they have a thick coat of fur, something like the Cashmere goat, which he thinks would be valuable. The meat is very delicious. Mr. W. speaks of the New-Mexican sheep as a very inferior kind. There is, also, a mongrel race, of hybrids, between sheep and goats (?), which are a worthless race. Nearly all the New-Mexican sheep have horns, and some of the rams, as many as five, sometimes three feet long.

He thinks not more than one tenth of New Mexico is cultivatable, and none of it without irrigation. Some of the isolated valleys of the Rocky Mountains, he speaks of as delightful places for the dwelling of civilization. The most extensive, by far, is that of the Great Salt Lake, which is sufficient to form a small state within itself. It is in the north part of this valley, that the Mormons are now settling. From two of them on the boat, I learned many facts in relation to that settlement; but I must not occupy space to repeat it. Though I doubt not the account of the trip of one of them, who went with General Kearney, to California, and returned through Oregon and the Salt Lake Valley, would be highly interesting to the readers of the *Agriculturist*.

On the boat, I made the acquaintance of Dr. W. J. Polk, a relative of the president, who related to me an anecdote of a planter on the Arkansas, that is so practical, that I will repeat it. It is his manner of punishing negroes, and he finds it more effectual than the whip.

Every Sunday, he gives an excellent dinner in a large room provided for that purpose, where he requires every negro to attend, neatly washed, and dressed, and after listening to a sermon, or the reading of some good discourse, all are seated at table, except those who are on the "punishment list;" and these are obliged to wait on the others,

and see them feast, without tasting a mouthful themselves. I would commend this course to others of my southern friends.

I landed at Vicksburg, November 17th, and found as fine a lot of mud in the streets of that hill-side town, as one could wish for. I spent the night with my hospitable friend, Daniel Swett, and in the morning saw a show of Mississippi ice. Mr. Swett has been for several years engaged in the introduction of improved agricultural implements, into this part of the country, without hitherto meeting with much success. One difficulty, hitherto experienced with eastern plows, is found in the low beams. (a)

Nov. 18th.—I rode out to the plantation of Dr. M. W. Philips, whose name has long been known to the readers of the *Agriculturist*. He lives some 15 miles east of Vicksburg. The intervening land, (Warren county), being the most uneven surface that I ever saw cultivated. It may be said that there are no hills; but the whole face of the country is sunken into hollows, from one to one hundred feet deep, just as thick as they can lie side by side of one another. The soil is a light alluvion, without grit, and very deep. It is very liable to gully, and yet the perpendicular cut banks of the railroad, are standing with the ten-year-old spade marks still as plain as when first made. Many a hill side in this country is cultivated by the hoe, where it is so steep that a mule cannot pull a plow. It used to be celebrated as one of the best cotton-growing counties in the state; but a continued cropping of the land, without manure, or even returning the cotton seed as manure to the soil, has so worn out much of the land, that it hardly pays for cultivating.

Doctor Philips (by birth a South Carolinian), though educated as a physician, does not practice. He is one of that small class in the south, sneeringly called "book farmers." He has about 300 acres of land under fence, of which 200 acres are cultivated. Much of this still bears the deadened forest trees, showing its late reclamation from the wilderness. He works ten field hands, and makes 80 to 90 bales of cotton a year, together with all his corn and meat. He has a small flock of sheep, from which he gets his negro clothing; he has also a large herd of cattle. Of course he eats "home-made butter," and of an excellent quality it is, too. His cattle are the best in the vicinity. His large stock of hogs is a mixture of Berkshire and grazier, about fifty of which are now fattening in the corn field upon waste corn and peas. These will weigh from 150 to 250 lbs. He has this year 90 odd acres of cotton; 80 acres of corn, and 15 of oats. By the by, he is now sowing oats. These will afford winter pasturage and make a crop ready to harvest the middle of June. These oats are sown upon cotton ground of the present season.

None of my eastern readers can imagine the troubles of plowing down cotton stalks. They are about as big as thrifty peach trees a year old, and almost as strong. [We have seen a cotton stalk at least three inches in diameter, as hard, and having the appearance of wood.] Add to this, as is sometimes the case, a good coat of crab grass, thrifty stalks of which I have measured four feet long, and

plow makers may see why high beams are required to their plows.

Dr. P. planted this season a quantity of eastern corn an eight-rowed, white-flint variety, in rows three feet apart, and hills with two stalks one foot apart, which grew to perfection; but was attacked with "the rot" after it had got ripe, and nearly all went to decay in the field. His other crop of corn, planted late and owing to much wet weather, became very grassy, he estimates at about 35 bushels to the acre. The cotton crop of this vicinity was much shortened by early frosts.

A medium crop of cotton is 1,000 lbs. of seed cotton per acre. This will produce 290 to 300 lbs. of ginned cotton, and about 30 bushels of seed, weighing about 22 lbs. a bushel. If 100 bushels of cotton seed per acre is used as manure, it will increase the crop about one fifth. About a quart of cotton seed to a hill of corn, scattered around the hill of young corn, it is thought will increase the crop about one fourth. Yet vast quantities of this valuable article are wasted. Perhaps it would be useful information to some of your readers to learn that cotton seed is about the size, and has somewhat the appearance, when free entirely from the lint, of large sunflower seed, and is equally oleaginous.

Dr. P. having a rather extra quality of Petit Gulf and sugar-loaf variety of seed, is putting up some hundred bushels for sale. He is sending a large quantity to South Carolina, and realizes a dollar a bushel, exclusive of pay for sacks.

There is a new kind of seed in this neighborhood called the "Hogan seed," selling for \$10 a bushel. Last year it was sold at \$1,000 per bushel, or a dime a seed! It is said to be a very large and productive variety, though not anything like so large as the mastodon, which, frequently in rich land, grows 8 or 10 feet high, with corresponding-sized branches.

Dr. P. is quite an amateur orchardist. He has about 40 acres set with trees, among which, he has 70 kinds of apples, some of which are now coming into bearing. And 140 pears,—150 named varieties of peaches, besides a host of unnamed—26 kinds of plums, 13 apricots, 5 or 6 of figs, and several nectarines. Early harvest apples ripen here the last of June. Early York and rareripe peaches ripen about June 20th. Snow peaches, July 1st, and some of them eight and a half inches round. Early Tilletson, ripen about 30th June, and are a very rich peach. Figs ripen here July 1st. Strawberries, April 10th, and continue about six weeks. Peaches bloom about the middle of February, and quinces the middle of March.

I have never seen a more thrifty-looking orchard than the doctor's. But few of the trees are yet in bearing. Mr. S. Montgomery, his brother-in-law, who also has a good orchard, is of opinion that summer apples will do well here; but has great doubts about success with winter varieties. At his place, we were treated with some very fine apples, just plucked from the trees. Certainly, if my wishes for success in raising fruit could insure it, such gentlemen as these would meet with a great share of it. I noticed on Mr. M.'s table, a well-read copy of Browne's *Trees of America*, and a full set of the bound volumes of the *Agriculturist*.

Mr. William Montgomery (the father), has spent a deal of money in a fruitless attempt to dam one of these soft-bank streams to drive a sawmill. Failing in this, he would now gladly avail himself of one of Page's patent circular saw mills, but is afraid to order one for fear it should prove a "Yankee humbug." A thousand other men in the south are in the same condition of this gentleman. They are greatly in want of just such a machine for sawing boards, but are afraid to purchase. So far as my word will go, I wish to assure them that these sawmills are just the thing wanted in a country where they cannot have water mills, and where all kinds of sawed lumber is, as it is here, very scarce and dear. Upon every plantation, there is already a horse power to which the sawmill might be attached at the gin house.

It is the fear of "buying a pig in a poke," that prevents a great many of these southern gentlemen from buying improved implements and machinery that would be of vast benefit to them. Many of them continue to use plows that would now be a great curiosity among eastern plowmen. Dr. Phillips has done much toward getting improved plows introduced among cotton growers. His system of cultivation, too, shows his neighbors whose land is wearing out, while his is improving, that such a soil as this judiciously managed should never wear out.

It is a truth that his crop of cow peas which he has often written about in the pages of the *Agriculturist*, appear to me sufficient to give the land a good coat of manure. The bulk of this crop must be beyond belief, to those who have never seen the like. My next letter I hope will be from the sugar plantations of Louisiana, provided it ever stops raining, so that I can get there.

SOLON ROBINSON.

"Log Hall," Hinds Co., Miss.,  
November 22d, 1848.

(a) One of the editors of this paper, R. L. Allen, has travelled extensively through the south within the last two years; and having detected this radical deficiency noticed by our correspondent, immediately ordered high beams for several sizes of plows, including an entire series from the lightest cotton at \$1.75, to the heaviest sugar plow. These are made both by A. B. Allen & Co., of New York, and by Ruggles, Nourse and Mason, of Worcester. We venture to say, that, including the beautiful self-sharpening and sugar plows, lately got up by the latter firm, and the cheap, yet well-made and efficient cotton, corn, and sward plows, made by the former, there has never been a set of plows constructed, combining so much economy and advantage.

**EFFECTS PRODUCED UNDER AN EXHAUSTED RECEIVER.**—Under a receiver thoroughly exhausted by an air pump, gold and feathers fall with equal velocity; most animals die in a short time, but some of those, which are amphibious, live several hours; vegetation ceases to grow; combustion cannot be maintained: gunpowder will not explode; smoke descends; water and other fluids change to vapor; heat is slightly transmitted; glowworms emit no light; a bell, when struck, is but faintly heard; and magnets are equally powerful.

#### LAKE CHAMPLAIN SHELL MARL (?).

On my father's farm, is a marsh (one of the many in this county), containing manure to a depth of from 10 to 25 feet. This manure you may call muck, if you please, but I shall dissent, in part, from that term, as I have used what I call muck, not half equalling it. Had I time, I should be happy to tell you of its excellent qualities, and of the grand results from its use. Sandy and gravelly soils it regenerates beyond anything I ever tried. It turns the hardest baked clay beds to a beautiful, rich, mellow soil. It will forward a winter or spring crop of wheat at least six days earlier than barnyard manure; and one dressing of it will outlast three dressings of that manure: besides, it is free from all kinds of seeds, or anything that will grow on upland. In digging it, the smell is very offensive, and it stains or colors whatever it touches a reddish brown. This marsh manure [marl? Eds.] is principally composed of the remains of vegetables, bones, and shells.

I have thought that if the farmers of Long Island would purchase it in lieu of our leached ashes, that have laid on the banks of our lake for seventy or more years, they would find it more beneficial; though the same properties contained in the one may not all be found in the other.

E. HIBBARD.

North Hero, Lake Champlain, Dec. 31st, 1848.

#### WIRE FENCE.

If Mr. Peters is correct in saying, in your January number, that five strands of No. 11 wire, 80 rods long, each weighing only 125 lbs., and can be bought for seven cents per pound, and will satisfy us that wire of that size is sufficient for a fence against horses and cattle, his communication is worth a life-time subscription for your paper. He should be ranked among that class of men who are conferring lasting benefits upon their fellows.

Will Mr. P. please to favor us, through the medium of the *Agriculturist*, with an account of the size of No. 11 wire, its strength, where it can be had at seven cents per pound, and the necessity of heating, as mentioned by him, before painting it. Certainly, if a sufficient wire fence can be made at so cheap a rate (20 cents per rod), it is worth enquiring into, and should elicit the attention of every farmer in the country.

I live where timber is plenty, and log fences are generally used; but have for some time been convinced of the waste. Last year, I made more than a mile of board fence with the object of saving timber. I cut the logs in my own woods, hauled them from five to five and a half miles to a sawmill, and paid \$4.50 per thousand feet for sawing, and after hauling the boards home, I probably had as much work, perhaps, to prepare them for a fence, as I should have had in preparing the wire. The bill for hauling and sawing alone cost me more than the wire would have cost, according to Mr. P.'s calculation.

S. T. WARREN.

Frederica, Del., Jan. 2d, 1849.

**VEGETATION THE SOURCE OF REPRODUCTION.**—No plants, no animals—no animals, no manure—no manure, no cultivation.

AGRICULTURAL MANUFACTURING PRODUCTIONS,  
CAPITAL, &c., OF THE U. S.

We find among our exchanges various estimates and statistics of the products of the Union, which seem quite incredible to any one not familiar with the resources of this country. Some of these are official, and some conjectural, the latter exaggerated, undoubtedly in some instances; yet, deducting largely for over estimates, we have still remaining an annual production from American industry and capital that will put to shame all the gold and silver mines of the globe, even adding those of California at the highest estimates which have yet been given of them. We shall throw these together, as a useful reference for such of our readers as like to dwell on the substantial glories of our rising republic.

The first item of interest is the vast and rapid increase of business on our two leading canals.

## NEW-YORK AND PENNSYLVANIA CANAL TOLLS.

	Erie Canal.	Penn. Canals.	Total.
1843	\$2,082,145	\$1,017,841	\$3,099,986
1844	2,446,038	1,164,325	3,610,363
1845	2,646,117	1,196,979	3,843,096
1846	2,756,120	1,295,494	4,051,614
1847	3,635,380	1,587,995	5,223,375
1848	3,279,443	1,550,555	4,829,998

The next gives the staple articles received on the Erie Canal. This shows a slight falling off in the aggregate of 1848, as compared with the previous year; but that was so immensely in advance of any preceding, owing to the accidental stimulus of the Mexican war and the famine in Europe, that this was fully to have been anticipated. Like the temporary decrease of level in some petty corner, where the incoming tide is rushing by, the subsidence only makes room for an additional increase from the next succeeding wave.

## PRODUCE ARRIVED AT TIDE WATER VIA THE NEW-YORK CANALS.

	1842.	1843.	1844.	1845.	1846.	1847.	1848.
Flour.....bbls.	1,577,555	2,073,708	2,222,204	2,517,250	3,063,441	3,952,972	3,121,655
Wheat.....bush.	928,347	827,346	1,262,249	1,620,033	2,950,636	4,143,830	3,081,458
Corn.....	366,111	186,016	17,861	35,803	1,610,149	6,053,845	2,887,937
Barley.....	522,993	543,996	818,872	1,137,917	1,427,953	1,523,020	1,551,328
Beef.....bbls.	21,437	47,465	50,000	67,699	45,600	71,266	63,288
Pork.....	79,235	63,777	63,646	45,154	80,093	76,179	88,301
Ashes.....	44,824	77,739	80,646	69,668	46,812	37,538	64,616
Butter.....lbs.	19,182,930	24,205,700	22,596,300	21,825,455	21,477,657	22,724,000	23,527,362
Lard.....				3,064,800	6,721,000	4,348,000	9,786,418
Cheese.....	19,004,613	24,336,260	26,674,500	27,542,861	35,560,118	40,844,000	42,947,329
Wool.....	3,355,148	6,216,400	7,672,300	9,504,039	8,866,376	12,044,000	8,729,400
Bacon.....				1,631,700	4,000,500	4,902,000	8,221,857

Let the reflecting man look at the quantities of butter, cheese, lard, and bacon, and wonder at the successful efforts of American industry as applied to these single items—nearly 85,000,000 pounds' worth about \$8,000,000 in the New-York market,

which have reached this point from one avenue alone!

The following table shows the increasing exports of some of the staple articles comprised within less than six and a half months.

	July.	August.	Sept.	Oct.	Nov.	Dec. 1 to 12.	Total.	Total '47.
Flour.....bbls.	27,518	44,998	106,739	155,784	233,681	33,561	502,391	739,267
Wheat.....bush.	18,824	19,173	156,103	159,953	180,378	22,654	547,085	1,191,604
Corn.....	289,080	465,697	1,060,953	516,500	604,326	149,136	3,065,692	1,408,352
Beef.....bbls.	1,180	2,001	1,538	1,229	9,380	4,947	20,275	14,908
Pork.....	4,604	7,356	6,109	3,186	5,993	1,492	28,740	27,179
Lard.....kegs.	23,719	20,332	19,703	22,356	27,185	5,260	117,555	33,611

We regret to notice that so large a portion of the wealth that would otherwise flow in upon us, is absorbed by imports, consequent upon the inadequate protection afforded to many articles, which

we should otherwise manufacture, with even greater advantage than attends an equal amount of labor bestowed upon agriculture. They are shown by the table appended.

## UNITED STATES IMPORTS AND EXPORTS AND CUSTOM DUTIES.

Years	Breadstuffs and provisions.	Other domestic articles.	Foreign goods.	Total.	Imports.	Duties.
1843	\$11,204,123	\$66,589,660	\$6,552,697	\$84,346,480	\$64,753,799	\$7,046,844
1844	17,970,135	81,745,044	11,484,867	111,200,046	108,435,035	26,183,571
1845	16,743,421	82,556,355	15,346,830	114,646,606	117,254,564	27,528,112
1846	27,701,121	75,640,772	11,346,623	113,488,516	121,691,797	26,712,667
1847	68,701,921	81,935,543	8,011,158	158,684,622	146,545,638	23,747,864
1848	37,472,751	95,431,370	21,108,010	154,032,131	154,977,826	31,757,070

The estimates of all the crops of the United States, for 1848, have been rated at over \$590,000,000. Of these, the New England States contribute only \$58,000,000; while New York alone contributes \$79,000,000; Pennsylvania, \$55,000,000;

Ohio, \$49,000,000, and Indiana \$47,000,000. These are the great producing states of the Union.

The whole investment in manufactures in the United States is set down at \$343,300,000. Of this, New England furnishes nearly one third, viz:

\$109,000,000. Massachusetts stands second only, in the United States, as a manufacturing state, having \$52,000,000 invested in this department of industry; while New York has \$69,000,000, and Pennsylvania \$50,000,000.

Indian corn appears to be the great staple of the country; the whole quantity for the year being set down at about 472,000,000 bushels, valued at \$141,573,000. The hay crop takes the next place, and is estimated to be worth \$128,000,000. Cotton stands next, being estimated at 2,400,000 bales, worth \$64,800,000. The wheat crop, this year, is supposed to be equal to 105,858,000 bushels, and is valued at \$63,514,000. The products of the dairy, it is supposed will be worth \$42,360,000, and the potato crop \$40,600,000.

These last estimates are undoubtedly erroneous in several respects. The product of New England is largely underrated, while that of other states is exaggerated. This arises from various causes, high prices at which corn and some other items are charged, excess of production, &c. The result, however, is in the main correct, and shows the immense value of our internal production and exchanges, as compared with our foreign commerce. And it further shows conclusively the propriety of fostering these, and our *home industry* in preference to those of foreign nations wherever they come in conflict.

#### CULTURE AND PRESERVATION OF POTATOES.

HAVING the present year, notwithstanding the severe drought, succeeded in growing and preserving a fine and healthy crop of potatoes, I have decided to furnish you with an account of the circumstances under which they were produced, and my opinion relative thereto, for insertion in your journal, should you deem it worthy of a place therein.

About the first of May, I planted five acres in the following manner: the soil was a dry, micaceous, sandy loam, gradually rolling with a southern exposure: the seed used was both white and purple Mercers, principally large ones, cut into three pieces, and rolled in gypsum, and allowed to lie but a few hours after cutting. The field was an old sward, chiefly of moss and garlies; the manure applied was entirely from the yards, made from the cow and horse stables and the styes, about twenty-five two-horse loads per acre, spread broadcast before the plow—the land having been heavily limed several years previous. The planting process commenced with the tillage, by dropping the pieces of the tubers (prepared as above), about one foot apart in the bottom of every other furrow, which was five inches in depth and ten inches wide, strewing them with ashes and fine charcoal (from a locomotive, in which pine wood was consumed), about twenty bushels per acre. The plowing was performed in the usual manner, in lands of twenty-five yards each.

Immediately after planting, the ground was thoroughly rolled. After it had lain a few days, it received repeated harrowings, lengthwise of the furrows, in the warm part of the day, which was continued until the tops were three inches in height, after which they remained without tillage until they were some eight inches high, when the cultivator

was passed through, between the rows, and the weeds, if any, removed. They then received a light top-dressing of gypsum, after which they remained untouched until fit to harvest, which was done as soon as the skins of the new tubers were firmly set, but before all the tops were entirely dead. We began to dig about the first of September, before the autumnal rains commenced. They were placed in a cool, dark cellar, and spread on the ground floor about eighteen inches thick, where they remained for two months, when they were assorted and placed in bins about four feet deep, there to remain until marketed in the spring. They have so far kept perfectly, there being no visible traces of disease in the entire crop.

The yield was about 250 bushels per acre, which was a much greater product than I anticipated on account of the excessive drought. The whole expense of the tillage of this crop did not exceed 4 cents per bushel, independent of the planting and harvesting, which cost not less than 10 cents per bushel, making the aggregate cost of producing the five acres (including the seed, 80 bushels at 80 cts. per bushel), \$239. Potatoes of the quality of mine are now worth 80 cts. per bushel in Philadelphia market, which would make the net value of the crop \$761. Truly, this is not so lucrative as some of the miners of California have represented the raising of gold to be; nevertheless, I think the Mercers, well roasted, set quite as well upon an empty stomach as gold ore, and judging from the effect produced upon the morals and customs of the nations in which the precious metals are found most abundant, I much prefer being classed with the cultivators than the miners.

JOHN WILKINSON.

Mount Airy Agricultural Institute, }  
Dec. 27th, 1848.

#### MINER'S ORNAMENTAL BEE HOUSE.

The engraving hereunto annexed represents an ornamental bee house, executed from an original design, expressly for my new work, entitled "Miner's American Bee Keeper's Manual," now *in press*, and shortly to be published by C. M. Saxton.

This cut represents something entirely new, in bee culture; nothing of the kind ever having appeared before, to the best of my knowledge. That such a bee house would be a beautiful ornament to a gentleman's grounds, or flower gardens, there can be no doubt; and when we take into consideration the great profit derived from the labors of the bee, it must be admitted by every person familiar with the true management of them, that money cannot be spent for any ornamental, nor other use, from which a greater harvest would be reaped. It is true, that, from the careless management of most bee keepers, many persons do not meet with the success that has been anticipated; but, where is the business, that yields a revenue, that *takes care of itself*? The bee will often produce a rich harvest, without any care on the part of the owner; but that such a result, should generally be the case, is more than we ought to expect.

I have said, and do still contend, that every prime family of bees, is *one hundred dollars at interest*; that is, equivalent thereto! It is but a small affair, to make bees, taking one family with

another, net their owner seven dollars per annum. Every stock or hive may not produce that amount in honey; but, counting the natural increase, at the lowest possible value, and the sum with increase and honey, is more than made up, with correct management. Here arises the question, what is *correct* management? I have only to say, that I think, that I shall soon lay before the public, a work, in my Manual, that will throw all the light on the subject that can be desired; and perhaps others have said the same before me; yet, "a tree is known by its fruits," and I will leave the matter with those who are familiar with my essays, published in the *American Agriculturist*, during 1846-7-8, to say, whether a work of merit may, or may not, be expected.

The hives represented below, are a style that I have recently constructed, of great beauty, and

will not admit of such an elucidation. I will however, say, that no other method of resting hives is superior to the above-mentioned plan, as I shall illustrate the same, in my treatise on the bee. I shall also give clear, and I trust conclusive reasons, for the use of open bee houses, instead of those that are enclosed.

In the foregoing cut, it will be perceived, that the roof projects over the posts. The object of this is, to shade the hives in the middle of the day, when the rays of the sun are the most powerful; and also, as a protection against storms, which are all that bees require.

The cost of such a bee house will be from \$30 to \$50, according to the labor bestowed on the ornamental portion thereof. It can be built very plain for a small sum; or a large sum may be expended to the improvement of its beauty. Every

particular pertaining to this structure, will be fully discussed in my Manual; and various other original designs for bee houses, of a more economical nature, as well as numerous beautiful engravings of different bee hives, invented, or improved by me; also cuts of various hives in use in this country and Europe; together with several scenes as they actually occur, during the interesting season of swarming, of peculiar interest, will appear in my Manual, making it, with its beautiful typographical execution, the most valuable treatise on the honey bee that has ever appeared. No money has been spared in its production. The engravings, which will be very numerous, are being executed by Mr. J. D. Felter, No. 140 Nassau street, whose skill in wood engraving is unrivalled; and although much has been promised in regard to the high character of this work, yet half has not been told. Instead of 250 pages promised in the prospectus, I think that I shall have to make it 300, 12mo., since much valuable and highly-important matter would be excluded, in a less number of pages; and I am resolved to make this work, the *clearest, the most ample, and the most instructive and interesting*

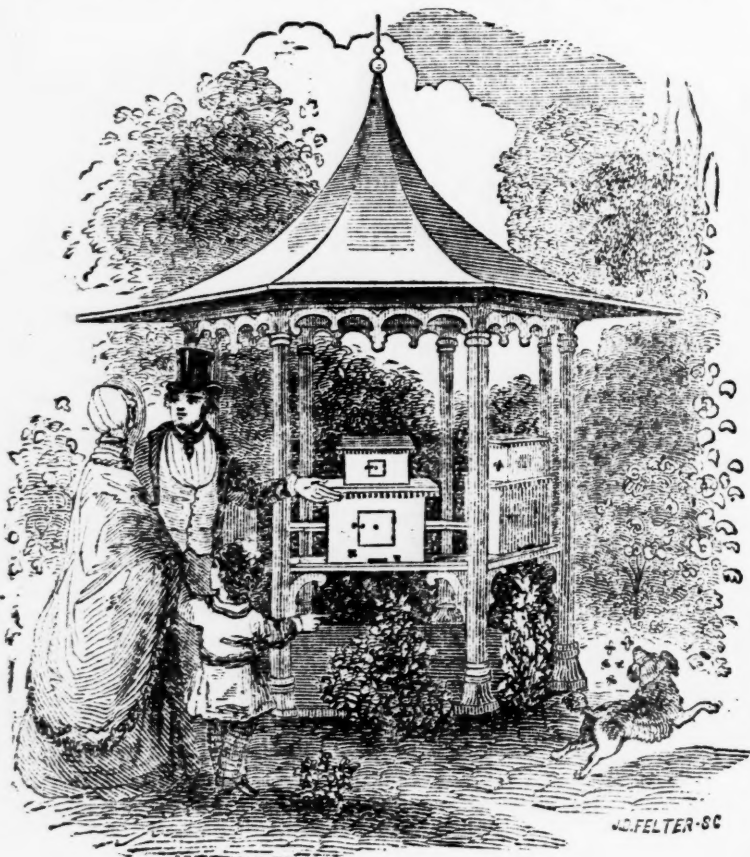


FIG. 7.

merit. This hive is intended to be ornamental, or otherwise, as the apiarian may choose; yet the embellishments cost but a trifle, and in its ornamental state, no other hive can begin to compare with its general beauty of proportions and architecture. The cut gives but an imperfect illustration of its true character.

This bee house, as the reader will observe, is *octangular* in its shape; that is, having eight sides; and consequently, affording room for eight hives. These hives rest upon an octangular stand within the posts, or columns, that support the roof of the house. The full particulars of the manner of arranging these hives, and the management of bees therein, together with directions in regard to the construction of the bee house, must be reserved for my Manual, since the space allotted me

treatise of the age.

The above engraving shows a gentleman, who is expatiating on the beauties of his apiary, or perhaps the singular habits of the bee, in its domestic economy. The lady on his right is his consort, who, with their little son, has just returned from a promenade. The little boy is calling his mother's attention to the affright of the scampering little dog, that intruded too near to the hives, to suit the wary bees; and he seems to pay rather dearly for his temerity. The gentleman, intent on the wonderful economy of his bees, disregards the cry of "Cato," whose nose smarting from the effects of sundry stings, runs with full speed to a place of safety. For hives, see advertisement at page 70.

T. B. MINER.

New York, Jan., 1849.

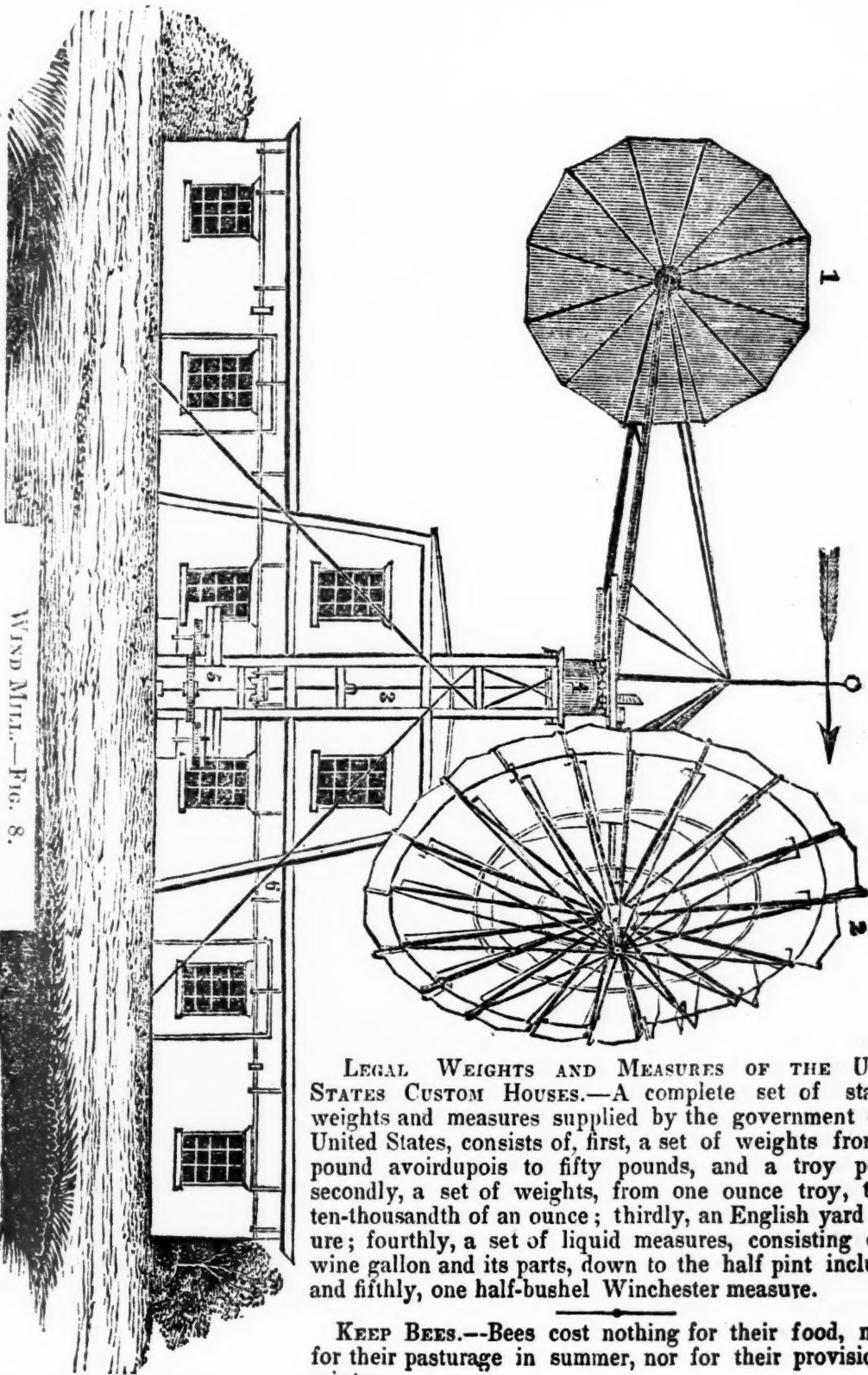
## PAGE'S STATIONARY WIND MILL.

The following description and explanation below will enable the reader to judge, in a measure, of the construction and appearance of a stationary wind mill, lately invented and patented. In addition to the usual application of machines of similar construction, such as grinding corn, sugar cane, churning, raising water, propelling sawmills, &c., the inventor proposes to establish a water power, by pumping up water, by wind, from a pond or well, into a reservoir of several acres, which, when filled, he

would apply to a water wheel, as in a river or stream.

Several of these wind mills have been erected in different parts of the country, at the south, as well as at the west, and orders are said to be multiplying for them from places where they have not previously been introduced. One has been put up in Rhode Island, by Mr. Josiah Chapin; another at Brushville, Long Island, by B. F. Manice, Esq.; and a third at Richmond, Staten Island, by Mr. S. J. Russ. The prices vary, according to size and mode of construction, say from \$100 to \$1,500.

Explanation.—1, denotes the vane, or tail piece; 2, the main wheel; 3, the tower; 4, the round top; 5, the millstones and gearing; 6 the main line of shafting through the shop, with the view of the interior of the building, gearing, &c.



**LEGAL WEIGHTS AND MEASURES OF THE UNITED STATES CUSTOM HOUSES.**—A complete set of standard weights and measures supplied by the government of the United States, consists of, first, a set of weights from one pound avoirdupois to fifty pounds, and a troy pound, secondly, a set of weights, from one ounce troy, to one ten-thousandth of an ounce; thirdly, an English yard measure; fourthly, a set of liquid measures, consisting of the wine gallon and its parts, down to the half pint inclusive and fifthly, one half-bushel Winchester measure.

**KEEP BEES.**—Bees cost nothing for their food, neither for their pasturage in summer, nor for their provisions in winter.

## LETTERS FROM CALIFORNIA.—NO. 1.

My former hurried letters, written on my pack saddle, by the light of the camp fires, or while taking a brief siesta after a hasty meal in the middle of the day, have been dispatched from time to time as I could find opportunity. I trust they have been received, as they have given a bird's eye view of the agricultural capabilities of the country through which we have passed, since leaving Missouri for this far-western region. The messengers employed were such wayfarers as chance threw in my way—trappers, itinerant merchants, alias pedlars, and occasionally, a returning emigrant; and I must confess to my frequent misgivings as to the safety of my missives, though I can't but hope some of them have arrived to afford the readers of the *Agriculturist* a slight inkling of the future prospects of this far-off region. (a)

Much of the country I have wandered over, in my journey hither, will probably forever remain incapable of cultivation; and plains, precipitous mountains, deserts of sand, and occasional forests, groves, and openings, with some grass-producing valleys and prairies between, make up no inconsiderable share of my whole course to this point, since leaving the frontier settlements of the once—now, alas! no longer, extreme western states of the Union. I know not how to account for the feeling of occasional sadness which comes over me, in the reflection that this is now a part of my country! So far away from all my early associations—so new, so strange, and inconceivable—it seems like a new stepmother, or near relative, just added by recent alliance, that a diffident lad knows little of, and even that little is not prepossessing—rather repulsive than otherwise, to an over-sensitive, retiring youth. Yet, why should I regret? Louisiana, Florida, Texas, were once, and but a few years since, the territories of France and Spain. Ultra foreigners in language, birth, race, habits, manners, and religion! but now naturalized, fraternized—incorporated with that all-pervading solvent and amalgam, the universal Yankee nation. Strange names of straits, rivers, countries, and what not, that only a few years ago, looked like the cabalistic words that grace Alladin's magic lamp, and the fairy tales of eastern romance, are now as familiar as household words, and make up a part of our every-day newspaper reports. Thus push we the bark of enterprise, adventure, conquest, and commerce along, till we are fairly installed on the mountain heights that overlook the broad Pacific. Here am I, a confirmed emigrant, one of the foremost of that pioneer, pilgrim band, that starting from the north Atlantic shore, pursue the setting sun in his course, and are destined to follow him over the islands of the Pacific and Indian oceans, China, India, Persia, Arabia, Asia Minor, Turkey, and the intermediate places, to the spot where they set out. This looks to me as the destiny of the Saxon, or Anglo-American race. If they fail in carrying it out, it will be from their losing a part of that roving, restless (and, were it not for the alliteration, I would say), resistlessly-reforming principle, that has hitherto impelled them to come in contact with everything, and renovate everything they touched. So operative will be these national characteristics, that California will soon be Califor-

nia no longer. The hordes of emigrants and adventurers, now or soon to be on the way, here, will speedily convert this wild, cattle-breeding, lasso-throwing, idle, bigoted, bull-baiting race, into an industrious, shrewd, trafficking, Protestant set of thorough-going Yankees. But I am going to give you a description of the agricultural aspect of the country, not an enthusiastic anticipation of what Yankeedom is here eventually to be.

California Alta (Upper California), extends from Oregon on the north, lat. 42°, to Old, or Lower California on the south, and from the Rocky Mountains on the east, to the Pacific. Of this extensive tract, between 600 and 700 miles square, and containing nearly half a million square miles, only a comparatively small part is suited to cultivation. This extends along the plains and valleys within 150 or 200 miles of the sea coast, and even this limited region is interspersed with numerous ranges of mountains, incapable of cultivation, extensive low, marshy lands, and many plains that will scarcely repay the trouble and cost of tilling. Yet, who shall assign a limit to the future population of California? There are still innumerable valleys and fertile plains, suited to every species of vegetation that grows without the tropics. Corn, wheat, the grasses, melons, and especially the vine and olive, grow here in great luxuriance, besides peas, beans, lentils, and whatever can minister to the sustenance of man.

The valley of San Joaquin, where I now am, is one of the most magnificent in California. It is nearly 500 miles long by 50 wide, through the whole length of which this river flows. It receives also numerous other streams, all, however, originating among the mountains bordering it upon the east. Many of them, as well as most others flowing into the Pacific, north of 35°, are filled with the most delicious salmon for a part of the year. The accounts I read when a boy, of the prodigious quantities of this prince of the finny tribe, in the waters of the Oregon territory, amazed me; yet, the abundance and quality, perhaps, scarcely surpassed those resorting to the New-England rivers in the early settlements of the country, when the municipal authorities of Rhode Island forbid the masters to force salmon upon their apprentices, beyond a certain number of meals in each week.

The agricultural capacities of this valley are fully equal to those east of the Rocky Mountains. The soil is good, much of it being clay, and running from this, through every variety of loam, to a diluvial sand. There is a considerable portion of this country, so far as I have seen, consisting of oak openings, similar to those I once saw in riding through the then new territory of Michigan, a dozen years ago. The soil through these is not of the richest quality; but much of that, where the orchards of evergreen oaks abound, is of great fertility and enduringness. The effects of these beautiful groves of perennial oak are almost enchanting. English parks, or rather their natural trees and foliage, will not compare with them. They grow generally isolated, but not unfrequently in clusters, more or less intermingled with other native trees, and thus produce the most pleasing effects.

The country is wretchedly cultivated, as you may well suppose. Here and there a straggling

Indian half-breed, or squalid Mexican, who is no better than his predecessors, is seen with his *guiso*, a rude, pointed iron, like a crowbar point, which is the only implement used for planting, weed- and cultivating their maize. Besides this, they have the *cavador*, a rough socket chisel, for planting and cultivating tobacco. The *coas* is a kind of shovel in the form of a veterinarian's flem, being a flat surface, projecting from a straight line, in the direction of the handle, of about eight inches in length, by seven in width. The hoes are pieces of thin iron, ribbed in the middle by a thicker iron, to give them strength, and are from 10 to 13 inches long, by three to four and a half wide, and bent in the form of a sickle. These, with a few coarse axes and briar hooks, constitute nearly the sum total of their agricultural tools. A section of the trunk of a tree, some 10 or 12 inches thick, forms the wheels of a rude wain or cart. The horses and mules are never shod; and untanned hides make up what little harness attaches them to their sledges or carts. Most of their use of horses is confined to the saddle and lasso. These, with a spirited horse, constitute their charter and bill of rights to go where, and do what they choose. When these are at command, and they can shoot a fat bullock at will, there is little temptation for them to abandon their independent seat, and betake themselves to the mere drudgery of a fully civilized life. They raise only what is essential to keep them from starvation, which is provided by their beans, corn, wheat, and a few roots.

Now and then, I meet with a live Yankee in these remote regions—men, who, in pursuing the bent of an original proclivity for wandering, have strayed into the wilds of California—soon destined to be wilds no longer. One of these (a naturalized, not original Yankee), has near 40,000 bushels of wheat on the ground; and, if properly harvested, will, at the high prices he is likely to realize, yield him a fortune that would satisfy even a gold digger. Some others have large *haciendas*, or *ranchos*, and rear immense herds of cattle, horses, and sometimes grow large quantities of grain. These men will make immense sums from their lands. At the present moment, gold is the leading, and almost only subject that claims attention. Every one is rushing to the mines, which seem to be almost as extensive as the valleys of the Sacramento and Feather Rivers, and their tributaries. It is supposed that the Sierra Nevada, that bounds these valleys on the east, is the father of all the gold washings below, and that when they get at the bowels of this, they will have found the *ovary* of the *goose* with the *golden eggs*! If we are not wholly misinformed by many intelligent, reflecting, veracious men, there is gold enough to last the hordes, that will be pressing here, as soon as the news reaches the Atlantic border, for many years. Of this I cannot speak advisedly, but will endeavor to inform myself authentically, and write you particularly in my next. But of this, however, I can confidently advise my countrymen at home. They should bring plows, shovels, hoes, scythes, grain, cradles, fanning machines, horse powers, &c., in large quantities; for here will soon be congregated hundreds of thousands, who *must be fed*. The soil and cli-

mate will do its part; it remains for man to do his, and plenty, rather than dearth, will attend the settlers. Gold is desirable anywhere; but gold will not buy what can't be had, or does not exist, at least within reach, and food must be raised *here*, or we shall all be liable to starvation. Let reflecting men, therefore, come prepared with a full supply of well-assorted agricultural implements, to raise their own provisions, at least; and, perhaps, they may be more advantageously employed in raising them for the gold diggers, than in digging for themselves—consider this advisedly.

If gold be the object here, let me advise all to come prepared for it. Get good machines, the best you can procure, for washing out the gold in quantities, and rapidly. Also horse powers for working these and mills; ox scrapers, wheelbarrows, wagons, tents, rifles, good blankets, and imperishable provisions, enough to last a year. If emigrants have any whiskey or brandy along, let them throw it overboard, and confine their beverage to tea or coffee. Intelligence, prudence, industry, and temperance, will, in a few years, amply provide a man here with a competency, and probably a fortune. I will give you more minute accounts of all in my next. \*\*\*

Valley of San Joaquin, California Alta, }  
October 2d, 1848.

(a) We are sorry to inform our correspondent and readers, that this is the first of the letters we have received from him, since leaving the valley of the Mississippi, in April last. We regret this the more, as every information on this interesting region, which will soon be thronged by emigrants to the golden land of California, will not fail to be duly appreciated. We trust the noble line of steamships, soon to be established on the Pacific, will, hereafter ensure their regular reception.

#### GRASSES, MEADOWS, AND PASTURES.—NO. 1.

THE order designated by naturalists as *graminae*, is one of the largest and most universally diffused in the vegetable kingdom. It is also the most important to man, and to all the different tribes of *graminivorous* animals. It includes not only what are usually cultivated as grasses, but also rice, millet, wheat, rye, barley, oats, maize, sugar cane, broom corn, the wild cane, and the bamboos, the last sometimes reaching sixty or eighty feet in height. Grasses are invariably characterized as having a cylindrical stem; hollow, or sometimes, as in the sugar cane and bamboos, filled with a pith-like substance; with solid joints and alternate leaves, originating at each joint, and surrounding the stem at their base and forming a sheath upwards, of greater or less extent; and the flowers and seed are protected with a firm, straw-like covering, which is the chaff in the grains and grass seeds, and the husk in Indian corn. They yield large proportions of sugar, starch, and fatty matter, besides those peculiarly animal products, albumen and fibrin, not only in the seeds, but also, and especially before the latter are fully matured, in the stems, joints, and leaves. These qualities give to them the great value which they possess in agriculture.

Of the grasses cultivated for the use of animals, in England, there are said to be no less than 200

varieties; while in the occupied portion of this country, embracing an indefinitely greater variety of latitude, climate, and situation, we hardly cultivate twenty. The number and excellence of our natural grasses are probably unsurpassed in any quarter of the globe, for a similar extent of country; but this is a department of our natural history, hitherto but partially explored, and we are left mostly to conjecture, as to their numbers and comparative quality. Their superior richness and enduringness may be inferred, from the health and thrift of the buffalo, deer, and other wild herbivore; as well as from the growth and fine condition of our domestic animals, throughout the year, when permitted to range over the woods, and through the natural prairies and bottom lands, where these grasses abound. The writer has seen large droves of the French and Indian ponies come into the settlements about Green Bay and the Fox River, in Wisconsin, in the spring, in good working condition, after wintering entirely on the natural grasses and browse north of latitude 44°.



FIG. 9.

at one cutting.

Sinclair estimates its value for hay, when in seed, to be double that cut in flower. From its increased value when ripe, it is cut late; and in consequence of the exhaustion from maturing its seed, it produces but little aftermath, or rowen. For milch cows, or young stock, it should be cut when going into flower, and before the seeds have been developed, as it is then more succulent. It vegetates early in the spring, and when pastured, yields abundantly throughout the season. Both the grass and hay are highly relished by cattle, sheep, and horses; and its nutritive quality, in the opinion of practical men, stands decidedly before any other. It is also a valuable crop for seed, an acre of prime grass yielding from 15 to 25 bushels of clean seed, which is worth in the market from \$1.50 to \$4.50 per bushel; and the stalks and the chaff that remain, make a useful fodder for most kinds of stock.

It may be sown upon wheat, or rye, in August or September, or in the spring. When sown either alone, or with other grasses, early in the season, and on a rich soil, it will produce a good crop the same year. From its late ripening, it is not advantageously grown with clover, unless upon heavy clays, which hold back the clover. I have tried it with the northern, or mammoth clover, on clay, and found the latter, though mostly in full blossom, still pushing out new branches and buds,

when the former was fit to cut. The quantity of seed required per acre, depends on the soil and its condition. Twelve quarts, on a fine mellow tilth, are sufficient, and equal to twice this quantity on a stiff clay. Heavier seeding than this may be practiced with advantage, and especially where it is desirable to cover the surface with a thick sward.



FIG. 10. FIG. 11. FIG. 12.

*Meadow Fox Tail* (*Alopecurus pratensis*), Fig. 10. This is a favorite grass in England, both for meadows and pastures. It grows early and abundantly, and gives a large quantity of aftermath. It is best suited to a moist soil, bog, clay, or loam. It is indigenous to the middle states.

*Smooth-Stalked Meadow, Green-Spear, or June Grass*, the erroneously-called *Blue Grass of Kentucky* (*Poa pratensis*), Fig. 11, is highly esteemed for hay and pasture. It is indigenous and abounds through the country, but does not appear to reach its perfection north of the valley of the Ohio. It is seen in its glory in Kentucky and Tennessee. The seed ripens in June and is self-sown upon the ground, where the succeeding rains gives it vitality; and it pushes out its long, rich, slender leaves, two feet in height, which, in autumn, fall over in thick windrows, matting the whole surface with luscious herbage. Upon these fields, which have been carefully protected till the other forage is exhausted, the cattle are turned and fatten through the winter. It maintains its freshness and nutritive properties in spite of frost, and the cattle easily reach it through the light snows which fall in that climate. A warm, dry, calcareous soil seems to be its natural element, and it flourishes only in a rich upland.

*The Roughish Meadow Grass* (*P. trivialis*), Fig. 12, has the appearance of the *Poa pratensis*, but its stalk feels rough to the touch, while the other is smooth. It has the further difference of preferring moist or wet loams, or clay. It yields well and affords good hay and pasture.—*Allen's American Farm Book*.

**SUBSTITUTE FOR THE POTATO.**—M. Masson has lately grown a new root, called the *ulluco*, which can, it is thought, replace the potato. It originally came from Peru, and grows perfectly well in the open air; the flavor is very near the same as that of the potato. The part above ground furnishes a very agreeable vegetable, something like the bean in flavor. Three crops of the green part can be obtained in the same season.—*Paris Paper*.

## YANKEE FARMING.—No. 9.

Good people all of every sort,  
Give ear unto my song;  
And if you find it wondrous short,  
It cannot hold you long.—*Goldsmith.*

LET my readers take it for granted, that a little over a year had elapsed since the scene of the "improvement of bog meadows," described in my last; and that we are now in the wane of the month of September. Little rain had fallen for the seven weeks previous, the weather had consequently been very favorable for working in marshy or boggy ground, for the streams and springs had become quite low.

Passing along the high road near Joe Watkin's, I thought I would take the opportunity of calling to see how he had finished ditching his meadows. As I approached the lower part, I espied him and Caesar hard at work there, with their backs toward me; the latter cheering their labor with a song, which he probably made up (*improvisatized*), as he went along.

Oh, wish 'em back to old Virginny,  
Where corn and 'backy grows so high  
As dem are tree down in de meader,  
Dat make old Caesar grin and sigh.

Whar coon and possum fat right plenty—

Here he smacked his lips, drew a long breath, and after delivering himself with extra energy of a prodigious great shovel full of mud, fresh excavated from the wide ditch where he was working, he began again—

Whar coon and possum fat right plenty,  
To butter 'tater sweet and big;  
And when I run 'em down and catch 'em,  
My Susy roast de little pig.

But dar come Massa Sargeant sllly,  
He tink I neber see 'em now;  
Ef he can catch dis nigger sleepy,  
Oh, den I does n't say bow wow!

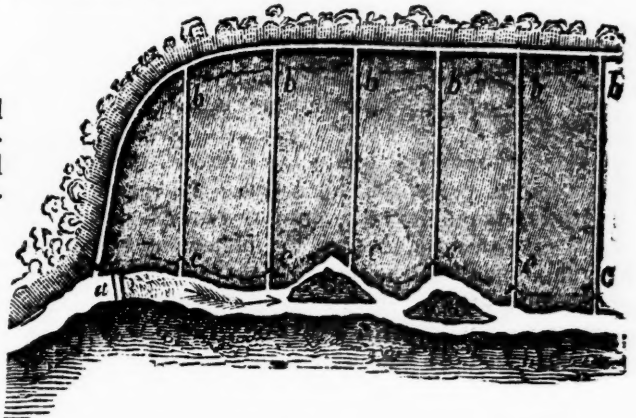
Here he turned round and fronted me full in the face, put on a furious look, imitated the barking of a great savage dog, then bursting into a loud laugh, lay down on the green sward, and rolled over and over, seemingly delighted with himself and performance.

You foolish fellow, said I, a little angrily, what do you act so for? Get up and go about your business again. But how did you know, Caesar, that I was here, when, as I came up, you were at work with your back towards me? "I see 'em atween my legs, when I stoops down shovelin'," was his answer. Oh, that is your way, is it? Well, I'll look out for you another time, and catch you by your woolly pate before you suspect my approach. "Jest as you say," and he looked up as cunningly out of his black eyes as a sly mink, "but ef you does, den you may knock your fist agin it, jest to see 'em which de hardest," he added, breaking out into another hearty fit of laughter. "And don't be mighty mad now, Massa Sargeant, when I tells 'em, better practice on a white-oak knot fust, to harden 'em knuckles." A very good hint, I replied, for of the two, I dare say your head would not prove the softest, there seems to be so little sense in it just at this moment.

But, Joe, you are coming on bravely here, I see, and have about finished your whole meadow with the good-humored Caesar's help; and well done it

is, too, really. Why you deserve a gold medal; and if we had a flourishing state agricultural society now, as they have in New York, I would petition to have one conferred upon you, for your timely and judicious improvements. "Pshaw, sartin," says Joe, at the same time blushing and looking a little sheepish at my commendations; "yet would you b'lieve it, Sargeant, Uncle Sim is rally goin' to beat us." Indeed! "Yes; he and the boys has been out at work, as he bragged he would, steady as so many beavers ever since they finished hayin'—they haven't gone a fishin' once this summer." Glad to hear that, Joe; let's go up and take a look at it.

We then quickly walked to the head of Watkins' meadow, leaped the dividing fence between him and Uncle Sim, and soon crossing to the upper half of Mr. Doolittle's property, found in reality that he had ditched about ten acres of his boggy ground in the most judicious manner. I was so pleased with it that I made a sketch of the improvement, at once, and here subjoin it for the better understanding of my readers.



IMPROVEMENT OF BOG MEADOWS.—FIG. 13.

a, is a dam thrown across Silver Brook, where there is a fall of five feet or so.

b, b, &c., a ditch several feet deep, running along the base of the upland, adjoining the bog meadow from which issue a number of springs into the meadow, keeping it constantly wet. This ditch now cuts them all off, and gives the low boggy ground a chance to dry.

c, c, &c., ditches running nearly at right angles with the main ditch b, b, &c., to carry off the spring water, and assist also to drain the meadow to the right and left.

An embankment is thrown up, along the margin of Silver Brook, which prevents its overflowing, except at very high water. Gates are placed at the head of the large ditch, b, b, &c., and at the foot of each ditch, c, c, &c., which can be opened or closed at pleasure. When it is required to draw off the water, from the meadow, the gates at c, c, &c., are kept open; but when it is wished to irrigate it, they are shut, and the gate at a, to let water from the brook into b, b, &c., opened, which floods it immediately. Thus, when too wet, the water is drawn off, and when too dry, it is let on; so that a great growth of grass is ensured every year, let the weather be what it may. As the soil is a rich, vegetable mold, I am perfectly confident, that, with the aid of the

rich sediment, annually deposited on it by the waters of the brook, its fertility may be kept up as long as the world lasts; so that the manure made from the consumption of the hay on the meadow, need not be returned to it, but may be used annually to enrich the uplands. This is what I call a precious farmers' mine, too many of which have, alas! never yet been worked in our country; and I fear, may not be for ages, leaving them to the production of a poor, coarse, watery grass, scarcely worth cutting. Enough of this, however, for the present, though I intend to resume the subject in my next, as I have yet to explain to Mr. Watkins, and the redoubtable Cæsar, the fertilizing qualities of water, and what it holds in solution and otherwise, that so greatly benefits the land.

SERGEANT TELTRUE.

#### WINE MAKING IN RHODE ISLAND.

MR. HORACE VAUGHN, of East Greenwich, Rhode Island, has made, the past season, one hundred barrels of wine from the vines growing wild, within a few miles of that place, thus showing the productiveness of the vine in this state. It is probably a fact, that there are more varieties of the wild grape growing in this state, comprising the black, purple, red, and white, than in any other state in the Union.

Mr. Vaughn has made the same kind of wine for several years, and finds quite a demand for it with churches for communion purposes, where it gives entire satisfaction; for he uses no alcohol in its manufacture. In fact, it is a very good wine, and shows that we are able to supply the article ourselves, without using the foreign adulterated "stuff," usually sold under the name of wine.

A. C. M.

Warwick, R. I., Dec. 18th, 1848.

#### PRODUCTIVE FARMING.

MR. JAMES C. CORNING, of Newtown, Bucks county, Pennsylvania, has favored us with the following amount of products, as sold from his farm of 125 acres, in the year 1848:—

Wheat, 516 bushels,	-	-	-	620.00
Rye, 50 bushels,	-	-	-	40.00
Oats, 1,000 bushels,	-	-	-	375.00
Indian corn, 17 acres, or 1,037 bushels,	-	-	-	621.00
Timothy seed, 4 bushels,	-	-	-	16.00
Potatoes, 100 bushels,	-	-	-	60.00
Apples, 500 bushels,	-	-	-	125.00
Hay, 70 tons,	-	-	-	840.00
Sheep and lambs,	-	-	-	25.00
Calves, 14 in number,	-	-	-	95.50
Swine, 20 in number,	-	-	-	240.00
Poultry and eggs,	-	-	-	125.00
Butter, from Feb. to Oct., 3,708 lbs.,	-	-	-	974.08

Total, - - - \$4,156.58

The stock remaining on the farm, on the 12th of December, consisted of 5 horses, 2 colts, 20 milch cows, 1 bull, 2 heifers, 10 sheep, and 1 breeding sow.

**How to Grow Rich.**—If you would grow rich and thrive, always take care that *he incomings* amount to more than the *outgoings*.

#### AGRICULTURAL EDUCATION.

AFTER so long a delay, we have for the first time in the history of the United States, the official recommendation from a chief magistrate, for the establishment of agricultural colleges and schools. All honor to Governor Fish for this first recognition from the gubernatorial chair, of the paramount claims of agricultural education. We trust this suggestion will be promptly followed up by the legislature, and that we may have *acts* to record in favor of this great interest; for we have had enough of *words*.

We have been amused from year to year, at the classification of the legislative Solons of this state, nearly nine tenths of them assuming to themselves the honorable occupation of farmers; yet with the petty exception of a few thousand dollars annually bestowed on the state and county agricultural societies, we are without any aid from this host of legislative farmers. We shall soon see whether they think public opinion is sufficiently developed on this subject, to follow out the enlightened suggestions of Governor Fish.

#### AUGUST FELLING TIMBER.

IN the American Agriculturist for this month is the following recommendation:—

"In cutting timber, of all kinds, advantage should be taken of the season which will favor their duration and strength. Thus, oak and most other kinds of non-resiniferous trees, as far as the knowledge of practice extends, are stronger and more durable when felled in early winter, at the time the pores contain but little sap." As this season for cutting timber for any purpose, either building, fencing, or firewood, is so at variance with my experience for more than forty years, in its durability and strength, or good quality for fuel, I thought it might benefit the agriculturists of the country to know the proper time for cutting all kinds of timber in this section of country.

If oak, hickory, or chestnut timber is felled in the eighth month (August), in the second running of the sap [The descent of the autumnal sap in the bark?—Eds.], and barked, quite a large tree will season perfectly, and even the very twigs will remain sound for years; whereas, that cut in winter, or spring, and remains until the next fall, the limbs (as thick as one's wrist), will be completely sap-rotten, and will be almost worthless for any purpose. The body of oak split into rails will not last more than 10 or 12 years. Chestnut will last longer, but no comparison to that cut in the 8th month. Hickory cut this month is not subject to be worm eaten, and will last a long time for fencing.

When I commenced farming, in 1802, it was the practice to cut timber for post fencing in the winter. White-oak posts and black-oak rails, cut at that time, I found would not last more than 10 or 12 years. In 1808, I commenced cutting fencing timber in the 8th month. Many of the oak rails cut that year are yet sound, as well as most of those formed of chestnut. If the bark is not taken off this month, however, it will peel off the rails itself, the second or third year, and leave the sap perfectly sound. The tops of the trees, also, are

much more valuable for fuel than when cut in winter or spring.

I advise young farmers to try the experiment for themselves; and if post fence will not last twice as long, I forfeit all my experience as worthless.

WILLIAM PAINTER.

Concordville, Del. Co., Pa., 1 mo. 1st, 1849.

#### SPRING FELLING TIMBER.

SEEING an article in your January number, on the proper time for felling timber, I would just say I differ in opinion with the article in question. I have for the most part cut my timber, for rails and posts, for the last ten or fifteen years, as early in the spring (say last of April, or first of May), as to get off the bark conveniently, and secure a growth of sprouts from the stumps. And I have no reason to return to the old custom of winter cutting, which practice originated from the fact that farmers had more leisure than in the spring.

This will apply, also, to the erroneous habit of trimming fruit trees in February, which I consider the most fruitful source of decay in orchards, and imperfect quality of fruit.

HENRY BAKER.

Pennington, N. J., December 30th, 1848.

Here we have two communications from practical farmers, whose intelligence and veracity we have no reason to question; yet, their opinions, it will be perceived, are at variance with each other, as regards the proper season for felling timber, and doubtless both are right, so far as the barking of fence rails is concerned, which should always be done, whether they are cut in winter or summer.

The views on this subject, heretofore expressed by us in the *Agriculturist*, are corroborated by a long series of experiments, instituted by the Board of Admiralty of Great Britain, as well as by the Navy Commissioners of the United States.

#### RAT CATCHING.

THE professed rat catchers in England are in the practice of using both the oil of rhodium, and the oil of anise to draw rats from their holes, in order to kill them. Dr. J. V. Smith, of Boston, lately stated at an agricultural meeting, the complete success of an experiment in which he used the oil of anise alone, when the rats immediately came out of their retreats, even while he was present. He also said that ground plaster of Paris (gypsum), well mixed with dry meal, will be eaten greedily by rats and mice, and that it becomes hard in their stomachs and kills them. Nux vomica powdered, and mixed with Indian meal or oat meal, will also destroy them, without danger to domestic animals, which are often injured, and sometimes killed by other kinds of rat poisons.

The following ingenious mode of catching them is often successfully practiced in my part of the country, from twelve to twenty having been caught in one night:—We place in the barn, or near the corn crib, a barrel or deep tub, half full of corn meal, oats, or any other food, of which rats or mice are particularly fond, and let them eat of it for a night or two, to attract them to the spot. Then empty out the corn, &c., and replace it with water; cover the water with thin flat shavings, and

strew over them a thick layer of their favorite food. The rats will jump into the barrel as usual, slip through the covering of shavings, and will be drowned in their efforts to get out. E. S.

#### SPECIAL MANURES.

WE condense from an article in the *Agricultural Gazette*, by Mr. Prideaux, the following information on the actual quantities of the essential inorganic ingredients carried off from an acre of produce of our leading agricultural crops, which are to be restored to the land in order to maintain its fertility:—

	Potass in lbs.	Soda in lbs.	Magnesia in lbs.	Phosphoric acid in lbs.	Sulphuric acid in lbs.	Chlorine in lbs.
Wheat grain 25 bshls.	7.15	2.73	3.63	15.02	0.07	
Straw 3,000 lbs.	22.44	0.29	6.89	5.54	10.49	1.97
Total....	29.59	3.02	10.52	20.56	10.56	1.97
Barley grain 40 bshls.	7.24	4.32	3.97	20.74	0.05	0.02
Straw 2,650 lbs.	10.29	0.92	5.25	5.02	2.66	1.58
Total....	17.53	5.24	9.22	25.76	2.71	1.60
Oats grain 50 bushels.	10.83		3.52	14.48	5.28	0.35
Straw 3,800 lbs.	64.78		8.95	5.38	9.95	8.51
Total....	75.66		12.47	19.85	15.23	8.86
Beans grain 25 bshls.	13.60	4.30	3.15	15.20	0.40	0.30
Straw 2,800 lbs.	90.21	2.72	11.38	12.32	1.85	4.35
Total....	103.81	7.02	14.53	27.52	2.25	4.65
Red clover.....	26.70	7.07	4.45	8.80	5.98	4.86
Potatoes 8 tons.....	222.56	7.44	21.08	50.20	54.48	17.04
Tops 1,000 lbs.	50.44	29.27	12.76	13.72	12.38	22.19
Total....	273.00	36.71	33.84	63.92	66.86	39.23
Turnips 20 tons.....	142.66	17.31	18.16	25.77	46.24	12.24
Tops 1,850 lbs.	88.52	16.76	9.58	23.80	38.81	49.75
Total....	231.48	34.07	27.74	54.57	85.05	61.99
Cabbage 20 tns. 900 lbs.	105	184	54	112	192	52

These, then, we have to restore to the land, after each of the crops specified. The straw, it is true, ought not to be carried off; but it is better not to reckon too close.

The best supply of phosphoric acid for the farmer will be bone dust; because the fossil phosphates, though cheaper, are so uncertain in strength that he would never know how much he was using. Genuine bone dust will contain about 25 per cent. of phosphoric acid; and will require one half its weight of salt, and one third its weight of strong sulphuric acid to soften and render it soluble; and these will also more than supply the sulphuric acid, soda, and chlorine. Brown sulphuric acid of specific gravity 1.75, is to be preferred where it can be had, as cheaper, although it requires one half instead of one third the weight of the bone dust. The little portion of magnesia will often be more than supplied in the lime used about the land; or if the limestone does not contain it, may be put in at very small cost, either in crude sulphate of magnesia, or in the bitter residual liquor of the salt works.

The potass is the most difficult. Pearlash contains about 50 per cent., and is rather dear. Potass of commerce is a little cheaper and stronger (say 60 per cent.), but not so readily procurable

dry. Weed and vegetable ashes of the farm, when clean, may contain 25 per cent., but are often so full of earth, &c., that they may be not half this strength. Wood ashes (if we average their potass at 3 per cent.), vary, also, and are not easy to get sound and genuine; and green vegetables, unburnt, must be rotted in compost before they can be mixed with the other ingredients. Crushed granite, (averaging 7 per cent. potass) digested with lime, although the materials are inexhaustible, is not yet in the market; and must be used, when it does come, in increased proportion, from its slow solubility; but will still be much cheaper and more certain, as well as far more durable, than any other potass manure.

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Now, every practical agriculturist knows, that when this substance (*humus*), is mingled with the soil, it is productive of much advantage to the succeeding crops; but if you ask an unenlightened farmer in what way his vegetable manure acts, or how his crops are benefitted by it, he will either candidly tell you he does not know, or he will manifest his ignorance still more plainly by a very absurd and unscientific explanation. If the same question be put to others who have given attention to the subject, with such aid as science affords, there will be found among them a diversity of opinion; for the question is one which science has not yet solved to the satisfaction of all minds. I would here observe that if science sometimes fails to grasp every truth within her sphere, this consideration should not lead you to distrust her usefulness, but rather stimulate you to more thorough investigations with the hope of bringing to light such truths as still lie concealed. When we reflect on what she has done and is still doing, we feel that we have no right to set limits to her powers, and that we may be constantly looking forward to still more brilliant achievements.

*Humus* has been frequently analysed, and numerous experiments have been made to test its various properties. As regards its chemical constituents, they will always be found to vary with the vegetables from which it is formed.

The volatile, or organic constituents of plants, viz., oxygen, hydrogen, carbon, and nitrogen, compose by far the greater part of their bulk or weight—usually over 90 per cent. These are called *organic* constituents, because they enter largely into the formation of all organic bodies, both animal and vegetable. All the other constituents of plants, including salts, and earthy or mineral substances, are called *inorganic* constituents. As the process of decay proceeds in the *humus*, the organic elements pass again into the air. The hydrogen of the vegetable matter unites with a portion of its oxygen, and passes off in the form of vapor; the remainder of the oxygen unites with a part of the carbon, forming carbonic acid, which also mingles with the atmosphere. What is left of the carbon (for there is not in vegetable fibre sufficient oxygen to consume it all), combines

with a portion of the oxygen of the air; and now the only organic ingredient left is nitrogen. This at the moment of its liberation, or in its nascent state, unites with a portion of hydrogen forming ammonia.

Such is the process which takes place when vegetable matter is decomposed at a temperature above 65°, and with free exposure to air and moisture; but as all these circumstances do not always combine, the process is subject to many variations, all of which, however, produce the same result, viz., the separation of the organic from the inorganic constituents. Now this process corresponds with combustion, or the change which vegetable matter undergoes when burned—the only difference being the time required for its completion—and what is left after the four volatile ingredients have been returned to the air, is precisely what would have remained in the form of ashes, had the vegetable matter been consumed by fire. This remainder, or ashes, rarely constitutes more than from 4 to 8 per cent. of the whole, and consists entirely of inorganic constituents, which are most of them variously combined in the form of salts. The ashes of rye straw contain the following salts: silicates of lime, potash and magnesia; sulphate of potash; chlorides of potassium and sodium; and phosphates of lime, magnesia and iron. In the *humus*, then, formed from rye straw, all these ingredients will be found, and will remain upon the land, or in the soil, where the decomposition of the *humus* takes place.

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the surplus amount of this gas, thus supplied to the air, must be too small to be deserving of much notice.

The decomposition of humus is also attended with the formation of ammonia. It has the power, also, of absorbing and holding within its pores a very large amount of this gas. All plants require a small portion of nitrogen—and chemists are united in the opinion that the nitrogen of plants is obtained from the ammonia which their roots imbibe. Hence, we may reasonably infer that manures, containing nitrogen, are of much value in furnishing this element to plants. There are many respectable chemists, however, who contend that the ammonia existing in the soil, together with that brought from the atmosphere by every rain, is always sufficient for the wants of the plant; and that we have no reason, under any circumstances, to expect much benefit from that furnished by artificial means. But repeated experiments made with nitrogenous manure furnish abundant proof of their value; though, owing to accidental causes, they may not always be productive of the same amount of good. In the sixth volume of the *Agriculturist*, page 302, you will find a short article giving an account of some very conclusive experiments on this point. I would also refer you to vol. v., p. 250, where you will find an excellent article from the pen of A. Beatty, on this subject; and in vol. vi. pp. 46 and 112, the same subject is continued. These letters of Mr. Beatty's, on the "Preservation and Application of Manure," are well worth your careful perusal.

Those who deny the value of nitrogen in manures, account for the beneficial effects of humus by saying, that it improves the texture of the soil and supplies it with those salts and other inorganic ingredients which are essential to the growth of vegetables, besides being of much service to some soils by its capacity for absorbing moisture. These are in reality considerations which ought not to be overlooked; and, I doubt not, the benefit obtained from humus is more frequently derived from these sources than from the nitrogen it supplies.

The manner in which humus promotes the growth of plants must vary with the conditions under which it is applied. When a soil is stiff, hard, and tenacious, it will be of service in improving the texture; when a soil is so loose and porous that crops grown upon it are liable to injury from drought, its power of absorbing moisture will be of much advantage; when a soil is deficient in nitrogen, and the crop to be raised upon it is one requiring a large supply of this element, the principal benefit of humus may be to supply this deficiency; and when any of the inorganic ingredients are wanting, humus will be able to supply them. According to these views, circumstances can rarely occur when humus will be of no service, though we cannot always expect equal advantages from its use.

Much more might be said on this interesting subject; but I have already extended my communication to a considerable length, and will close by advising you to seek further information from more elaborate productions.

J. McKINSTRY.

Greenport, N. Y. Jan. 1st, 1849.

#### SAGACITY IN THE BARN-DOOR FOWL.

THE interesting observations of E. S., in the Boys' Department for December, reminded me of an incident, that, to my mind, went very far to dissipate the distinction between *reason* and *instinct* in the brute creation. Had the elephant, the horse, or the dog, such convenient apparatus as two hands with four fingers and a thumb on each, our power over them would possibly be much less than it now is—particularly if they had the faculty of speech to communicate ideas, and transmit knowledge by tradition or otherwise. I have not the time, however, nor have you the space to spare for a lengthened discussion on the subject, but I will give your boys some facts and they can do up the reasoning for themselves.

I let my chickens run in a plot before my door, where I raise a number of the hardier descriptions of flowers, which they cannot injure much in their lawful pursuit of hunting up the thousands of marauding insects. Among the plants, last summer, was a tall sunflower, that bore a pretty luxurious crop of seeds. One afternoon, my attention was drawn to the operations of a rooster and his *coterie* of hens in the vicinity of the sunflower. He would walk back a few paces from the plant, and then run full speed and strike his bill against its stalk, when the hens would immediately busy themselves in picking up the spoils, which, I at first thought were insects. After watching the operations of the rooster awhile with his "battering ram," a hen came flying from a little distance, made a dive into the ripe sunflower with her bill, and with a simultaneous strong action of her wings, shook down a plentiful repast of the ripe seed, which formed a delicious feast for her biped companions. I now saw into the philosophy of Chanticleer's proceedings; and on examining the stalk, I found the outside bark, for a certain distance, had all been chafed away by his repeated blows for bringing down the seed.

There seemed to be more science in Chanticleer's operations, but there were richer results from Biddy's plan; but both appear equally to prove a reasoning from cause to effect. Were the battering rams of the ancients for breaking down the walls of a city, a greater display of reasoning ingenuity than the rooster's method of bringing down the ripe seed? I think not.

J. B.

Harsimus, N. J., Jan., 1849.

WHAT THE STEAM ENGINE DOES.—It propels, it rows, it sculls, it screws, it warps, it tows, it elevates, it lowers, it lifts, it pumps, it drains, it irrigates, it draws, it pulls, it drives, it pushes, it carries, it brings, it scatters, it collects, it condenses, it extracts, it splits, it breaks, it confines, it opens, it shuts, it digs, it shovels, it excavates, it plows, it threshes, it separates, it winnows, it washes, it grinds, it crushes, it sifts, it bolts, it mixes, it kneads, it moulds, it stamps, it punches, it beats, it presses, it picks, it hews, it cuts, it slits, it shaves, it splits, it saws, it planes, it turns, it bores, it mortices, it drills, it heads, it blows, it forges, it rolls, it hammers, it rasps, it files, it polishes, it rivets, it sweeps, it brushes, it scutches, it cards, it spins, it winds, it twists, it throws, it weaves, it shears, it coins, it prints.

## FOREIGN AGRICULTURAL NEWS.

By the Steamer Washington, we are in receipt of our foreign journals to the 19th December.

**MARKETS.**—*Ashes*, no change. *Cotton* very active, with a steady advance in prices. *Bread Stuffs*, a slight decline, and with so abundant a supply that, it is thought there can be no improvement for the present. *Provisions* rather more in demand. Nothing of moment in other matters.

*Money* still very abundant, and at a low rate of interest. American stocks continue to be sought for, to a moderate amount, for investment.

**How to Kill Worms on Lawns.**—Two ounces of corrosive sublimate, dissolved in a large quantity of water, is efficacious, and will not kill the grass, but it will kill other things and injure the grass, although not permanently. [Why not use lime water, which does just as well, and does no harm?]—*Gard. Chron.*

**Extraordinary Turnip.**—In the shop of Mr. Ewer, corn factor and seedsman, Salisbury, Wilts, may be seen at the present time a turnip of the "green round" kind, the circumference of which is 42 inches, and which weighed, with the top, 36 lbs.; the trimmed bulb now weighing 27 lbs. This immense root was grown by Mr. Richard Drew, of Durnford, near Salisbury. The ground on which it grew was manured with superphosphate of lime and bone dust.

**Smithfield Cattle Show.**—This great event came off as usual in London, in the month of December last. The show, though not so large as is generally the case, was considered quite a fair one. The first prize was taken by a Hereford ox, fattened, and shown by Prince Albert. To give our readers an idea of the importance of this annual show of fat animals, we have only to add, that the value of the cattle, sheep, and pigs, in the market, was estimated at £200,000 sterling, about one million dollars of our money!

**Milk as an Article of Diet.**—It is common to regard milk as little else than mere drink. But this is an error. Milk is really an article of solid food, being coagulated soon after reaching the stomach. New milk contains 13 per cent. of digestible solids, and skimmed milk 10 per cent.; that is, the former fully one half, and the latter above a third, of the nutriment contained in the lean part of beef and mutton.

**Curious Mode of Grafting the Grape Vine.**—A gentleman in the neighborhood of Oporto, split a vine shoot (white grapes), very carefully down the middle, cutting the bud in half, and then split a corresponding shoot on a black vine, and united them as in common grafting, and, after many experiments, succeeded in making the graft grow, and the produce of the vine was white and black fruit on the same bunch, and on others variegated fruit.

**Clipping Horses.**—Clipping, undoubtedly, enables a horse to perform his work with greater ease, in the same way that a man can work easier in his shirt sleeves than in a great coat; besides this, he can be dressed quicker and more readily. Extra clothing is required, and the horse should not stand about in cold weather. Where, however, he is obliged to do so, singeing is better than clipping, as it does not remove so much of the coat, but can be repeated during the winter.—*Agricultural Gazette.*

**Buried Alive Two Thousand Years.**—Lord Lindsay, in his *Travels*, writes, that while wandering amid the pyramids of Egypt, he stumbled on a mummy, proved by its hieroglyphics to be at least 2,000 years of age. In examining the mummy after it was unwrapped, he found in one of its closed hands a tuberous or bulbous root. He was interested in the question how long vegetable life could last, and therefore took that tuberous root from the mummy's hand, planted it in a sunny soil, allowed the rains and dews of heaven to descend upon it, and in the course of a

few weeks, to his astonishment and joy, the root burst forth, and bloomed in a beautiful dahlia. Thus is it written into a London newspaper! We do not dispute the fact—very likely the root produced a dahlia; but as the dahlia comes from Mexico, and as Mexico has not been known to Europeans quite 2,000 years, we would humbly suggest that there may be some small doubt whether the dahlia was put into the mummy's hand when it was embalmed, or when it was unpacked.—*Ibid.*

**Weeds in Gravel Walks.**—For more than 10 years past, I have used salt (but not in solution), for destroying and keeping down weeds in my gravel walks, with perfect success, and without perceiving that the application acted as a stimulant to reproduction. The contrary is the case. I sow the salt by hand in dry weather, and sweep it about thin, and as regularly as possible. I have seldom occasion to do this more than once in 12 months.—*Ibid.*

**The Night-blowing Cereus.**—By a series of experiments, I have discovered a method of preserving this interesting flower of a night, for days and nights together. I cut the flowers close off, place them in a large dish of fine charcoal, covered with a hand glass, and keep them in a dark cave or vault. In this way, I have frequently preserved them perfect in shape and color for a week, bringing them out freely in the light of day, to gratify the many, and to satisfy the incredulous. This is the more remarkable, as this fine flower is known to exist but a night on the plant. It opens when the sun sets, and by the time he rises, on the following morning, it droops its head, closes, and dies.—*Ibid.*

**A Washing Plant.**—In California there grows a plant (*Agave saponaria*?), which is said to be used for washing every description of clothing in cold running water. In using it as soap, the women cut the roots from the bulbs, and rub them on the clothes, when a strong lather is formed. To propagate the plant, the bulbs are set in a rich moist soil, and grow most luxuriantly in the soft bottoms of valleys, or on the borders of running streams.—*Ibid.*

**Pruning.**—When small branches die, or begin to die, it is better to remove them with the knife, so as to have a clean wound rather than a ragged one. We see no use in shortening larch branches, unless it is done very moderately, in order to keep them within compass; then, and if done skillfully, it enables the trees to make timber quicker than they would if the branches were removed. It is true that roots must, to some extent, be injured in transplanting, unless they have been confined in a pot; and it is also true that where they are extensively injured the head of a tree must be also reduced; but it requires experience to know when this becomes necessary. When trees are young it never need be done, if they are carefully taken out of the ground.

**Small Holdings in France.**—France contains 92,000,000 cultivable acres, of which 6 millions are under forests, leaving 86 millions divided thus:—

3,000,000 families cultivating their estates of a little more than 6 acres, possessing altogether	20,000,000
800,000 do. cultivating little more than 26 acres each, say	20,000,000
1,000,000 do. cultivating their land, through tenants, on the conditions following:—	
By métayers, at half produce, about	30,000,000
By general leases to middlemen, with privilege of sub-letting	6,000,000
By special do. to tenants, without privilege of do.	10,000,000
	<hr/> 86,000,000

## Editor's Table.

**TO ADVERTISERS AND CORRESPONDENTS.**—As the matter of each number of the *Agriculturist* must necessarily be arranged by the 10th of the month preceding its publication, all those who wish to advertise in season, should avail themselves of the opportunity. Correspondents should forward their communications for publication by the 1st of the month.

**NEW WORK ON AGRICULTURE.**—We give in this number an extract from the *American Farm Book* of R. L. Allen, revised and enlarged, from the former editions of "The Compend of American Agriculture." This work is now in press, and will embody a large amount of practical information, condensed into the smallest compass. It is plainly written, and adapted to the humblest capacities, yet embodying the latest and best information on all the leading subjects of American husbandry. It is well illustrated with engravings, and contains from 300 to 400 duodecimo pages, handsomely got up, and will be for sale by C. M. Saxton, publisher, 121 Fulton street. N. Y. Price \$1.

**MR. BEMENT'S SALE OF AYRSHIRE STOCK.**—We would call attention to this important sale, which is to come off on the 14th of March. See advertisement.

**DISCONTINUANCE OF THE AMERICAN JOURNAL OF AGRICULTURE AND SCIENCE.**—We regret to learn that this favorite work, after completing its seventh volume, has been discontinued, as its familiar and instructive pages will be sadly missed by its friends and supporters. Mr. C. N. Bement, its late conductor and proprietor, has recently disposed of his celebrated farm, near Albany, and is about, as we are informed, to retire. We shall wish him all sorts of prosperity in his new home.

**THE CULTIVATOR**, a monthly paper, devoted to agriculture and rural affairs, published by Luther Tucker, No. 10 Green street, Albany, N. Y., price \$1 a year. The enterprising publisher of this excellent periodical was so unfortunate as to be burned out in the month of November last, and met, consequently, with a heavy loss. The January number of the *Cultivator*, however, is placed before us with its usual promptness, appearing like a new phoenix just fledged from its ashes. It abounds with handsome illustrations, and useful matter, and ought to be taken in every farm house in the United States. We trust that an increased subscription, from year to year, will amply compensate its enterprising proprietor for all his losses.

**THE NEW-ENGLAND FARMER**, a semi-monthly journal of 16 octavo pages, devoted to agriculture and all its kindred arts and sciences, edited by S. W. Coles, Esq., and published by J. Nourse, of Quincy Hall, Boston, at \$1 per annum; has lately been revived, and from the well-known reputation of the editor, and the enterprise of the publisher, as one of the extensive firm of Messrs. Ruggles, Nourse & Mason, of Boston and Worcester, we trust it will find a liberal support. It is got up in handsome style, and is filled with varied and useful matter for the farmer and general reader.

**ROOT PROPAGATION OF FRUIT TREES.**—The *Harverhill* (Mass.) *Whig*, says:—Two or three of the best farmers, within our knowledge, secure their fruit trees thus: They dig at some distance from a favorite tree, until they find a root which they cut off. The part disjointed from the tree is turned up, so as to appear above the ground. This sends forth shoots the first year, and bears, in a few years, fruit precisely like the parent tree.

**BANANAS.**—The cultivation of this fruit has been attended with complete success on several plantations on Galveston Bay.

**MODEL SHEEP.**—We have received from J. A. Taintor, Esq., of Hartford, several statues of his late imported Merino sheep, beautifully modelled in plaster. The merits of these specimens consist in the perfect accuracy of form, character, and appearance. They are the work of an accomplished Italian sculptor, who made a few models by way of parenthesis, in his more important avocations.

We think these efforts invaluable to breeders, as perpetuating the genuine appearance, embodying whatever excellencies or defects distinguish particular breeds or individuals, and placing them within the reach of all. Those alluded to above are in our office, where we shall be happy to show them to those who take an interest in such matters. They are really the most exact and life-like things of the kind we have ever seen, and show Mr. Taintor's noble sheep with great accuracy. He certainly deserves great credit for spending a little money in the way of modelling animals. We look upon a statue as far superior to a painting, for the purpose of giving an accurate idea of an animal.

**OFFICERS OF THE CORTLAND COUNTY AGRICULTURAL SOCIETY FOR 1849:—**

*President*—Peter Walrod.

*Vice Presidents*—Charles Taylor, Alfred Chamberlain, Moses Kenney (of Truxton), Chauncey Morgan.

*Treasurer*—Ira Bowen.

*Corresponding Secretary*—Amos Hobart.

*Secretary*—Geo. J. J. Barber.

*Executive Committee*—Amos Graves, Harry Woolston, Morris Miller, Hiram Hopkins, Francis Hibbard, Richard Cornell, Thomas Harrop, Amos Rice, Henry Sessions, Selden Munger.

*Marshals*—Noah Hitchcock, Jr., Israel Boies, Paris Barber.

**DISINFECTING PROPERTY OF COFFEE.**—Coffee is one of the most powerful means not only of rendering animal and vegetable effluvia innocuous, but of actually destroying them. A room in which meat in an advanced degree of decomposition has been kept for some time, may be instantly deprived of all smell on an open coffee roaster being carried through it, containing a pound of coffee newly roasted.

**SARATOGA MINERAL WATERS.**—We are glad to perceive that some enterprising capitalists are moving in the matter, of supplying the city of New York with water, self delivered from the mineral springs of Saratoga. We think this one of the best enterprises of the day, and hope it may be speedily carried out. It will place those healthful streams, that are now permitted to run to waste, within the reach of hundreds of thousands, who cannot, for the want of leisure or money, procure them. Every town or village along the route can use them, as well as immense numbers who live near the city, and are constantly visiting it. Here is a convenient and economical point, also, for shipping it to any part of the Union, and the world. We have no doubt, besides this being an enterprise fraught with the blessings of health, it is also certain to pay the proprietors, if rightly managed, a large per centage on the capital necessary to accomplish the object.

This will be rather better than resorting to the Aix-La-Chapelle waters of Jacob street, in this city, which used to be kept at their requisite potency, by the drainage from all the tanneries and sewers of the *Swamp*.

**NAMES AND VALUE OF SMALL SPANISH COINS IN SEVERAL STATES OF THE UNION.**—The Spanish real, valued, at 12½ cents, in Massachusetts is called a *nine pence*, in New York a *shilling*, in Maryland a *levy*, in South Carolina *seven-pence*, and Louisiana a *bit*. The half real, valued at 6¼ cents, in Massachusetts, is called *four-pence-ha'-penny*, in New York *six-pence*, in Maryland a *fip*, and in Louisiana a *picayune*.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, JANUARY 15, 1849.

ASHES, Pots,.....per 100 lbs.	\$6 25	to	\$6 31
Pearls,.....do.	6 50	"	6 55
BALE ROPE,.....lb.	6	"	8
BARK, Quercitron,.....ton.	26 00	"	28 00
BEANS, White,.....bush.	75	"	1 25
BEESWAX, Am. Yellow,.....lb.	19	"	22
BOLT ROPE,.....do.	11	"	12 1/2
BONES, ground,.....bush.	45	"	55
BRISTLES, American,.....lb.	25	"	65
BUTTER, Table,.....do.	15	"	25
Shipping,.....do.	9	"	15
CANDLES, Mould, Tallow,.....do.	11	"	13
Sperm,.....do.	25	"	38
Stearic,.....do.	20	"	25
CHEESE,.....do.	5	"	10
COAL, Anthracite,.....2,000 lbs.	4 50	"	5 50
CORDAGE, American,.....lb.	10	"	12
COTTON,.....do.	6	"	9
COTTON BAGGING, Amer. hemp,....yard,	15	"	16
FEATHERS,.....lb.	30	"	40
FLAX, American,.....do.	8	"	9
FLOUR, Northern, Southern and West'n bbl.	5 62	"	6 06
Fancy,.....do.	6 25	"	6 50
Richmond City Mills,.....do.	7 00	"	7 25
Buckwheat,.....do.	—	"	—
Rye,.....do.	3 12	"	3 25
GRAIN—Wheat, Western,.....bush.	1 10	"	1 31
Red and Mixed,.....do.	95	"	1 10
Rye,.....do.	62	"	63
Corn, Northern,.....do.	65	"	71
Southern,.....do.	60	"	70
Barley,.....do.	64	"	66
Oats,.....do.	35	"	45
GUANO, Peruvian,.....2,000 lbs.	50 00	"	50 00
" Patagonian,.....do.	35 00	"	40 00
HAY, in bales,.....do.	50	"	56
HEMP, Russia, clean,.....ton.	195 00	"	200 00
American, water-rotted,.....do.	160 00	"	220 00
American, dew-rotted,.....do.	140 00	"	200 00
HIDES, Dry Southern,.....do.	6	"	7
HOPS,.....lb.	4	"	12
HORNS,.....100.	2 00	"	10 00
LEAD, pig,.....do.	4 25	"	4 31
Pipes for Pumps, &c.....lb.	5	"	7
MEAL, Corn,.....bbl.	2 75	"	3 00
Corn,.....hhd.	14 00	"	14 50
MOLASSES, New Orleans,.....gal.	25	"	30
MUSTARD, American,.....lb.	16	"	31
NAVAL STORES—Tar,.....bbl.	1 75	"	2 00
Pitch,.....do.	1 25	"	1 75
Rosin,.....do.	90	"	1 25
Turpentine,.....do.	2 50	"	3 00
Spirits Turpentine, Southern,....gal.	35	"	38
OIL, Linseed, American,.....do.	51	"	53
Castor,.....do.	1 25	"	1 50
Lard,.....do.	65	"	70
OIL CAKE,.....100 lbs.	1 00	"	1 15
PEAS, Field,.....bush.	75	"	1 25
Black eyed,.....2 do.	1 25	"	1 50
PLASTER OF PARIS,.....ton.	2 25	"	3 00
Ground, in bbls.,.....of 300 lbs.	1 12	"	1 25
PROVISIONS—Beef, Mess,.....bbl.	9 00	"	13 50
Prime,.....do.	5 00	"	7 50
Smoked.....lb.	6	"	12
Rounds, in pickle,.....do.	4	"	6
Pork, Mess,.....bbl.	11 00	"	16 00
Prime,.....do.	7 00	"	10 00
Lard,.....lb.	7	"	8
Bacon sides, Smoked,.....do.	3	"	4 1/2
In pickle,.....do.	3	"	4
Hams, Smoked,.....do.	5	"	9
Pickled,.....do.	4	"	7
Shoulders, Smoked,.....do.	4	"	5
Pickled,.....do.	3	"	4
RICE,.....100 lbs.	2 68	"	3 38
SALT,.....sack,	1 25	"	1 45
Common,.....bush.	20	"	35
SEEDS—Clover,.....lb.	5	"	7
Timothy,.....bush.	2 00	"	3 50
Flax, clean,.....do.	1 30	"	1 40
rough,.....do.	1 20	"	1 22
SODA, Ash, cont'g 80 per cent. soda,....lb.	3	"	—
Sulphate Soda, ground,.....do.	1	"	—
SUGAR, New Orleans,.....do.	4	"	6
SUMAC, American,.....ton.	35 00	"	37 00
TALLOW,.....lb.	8	"	9
TOBACCO,.....do.	2 1/2	"	7
WHISKEY, American,.....gal.	23	"	25
WOOLS, Saxony,.....lb.	35	"	60
Merino,.....do.	25	"	35
Half blood,.....do.	20	"	25
Common do,.....do.	18	"	20

NEW-YORK CATTLE MARKET

At Market.—1,400 Beef Cattle (600 southern, remainder this state), 50 Cows and Calves, and 3,000 Sheep and Lambs.

Beef Cattle.—The extremely unfavorable state of the weather retards operations in the yard, to-day, and the market, upon the whole, may be reported very dull. Prices, from \$6 to \$8.50 as in quality. It is probable there was about 500 head left over.

Cows and Calves.—All taken at from \$22.50 to \$45.

Sheep and Lambs.—Sheep at from \$1.50 to \$6.50. Lambs \$1.50 to \$3. Unsold, 550.

REMARKS.—Flour, wheat, and oats have advanced slightly since our last, while corn has receded somewhat. Beef and pork continue high, at an advance, but prices will give way as soon as we are in receipts from the west, via New Orleans. These are daily expected. Cotton, a steady and quite satisfactory advance. The gold fever is all the rage just now in this city, but we hope it will not spread among the farmers. Beware of that and the cholera, and take needful precautions against both.

Money continues reasonably abundant, and business very active for the season.

The Weather has been unprecedentedly cold here the past week. The thermometer sank to within three degrees of zero in the city, and one or two below in its immediate neighborhood; colder than we have before experienced for thirteen years. The weather is now quite mild, with a rain and thaw.

TO CORRESPONDENTS.—Communications have been received from E. J. Capell, Old Lady, Samuel Allen, A Friend to Agriculture, Wm. H. Gardiner, N. Longworth, Solon Robinson, M. W. Philips, Sergeant Teltrue, Enoch Reed, D. A. Morrison, Wm. Day, Peter Gimlet, N. S. Smith, J. C. Spencer, and Reviewer.

Putting up Butter in Ice for N. Y. Market.—W. S., of Dover, N. Y.—Turn to p. 314. vol. vii. of the Agriculturist, and you will find the information you ask.

Estimating the Quantity of Hay in the Mow.—A. W. C., of West Farms.—We do not know of any rule for computing the exact quantity of hay in a mow of given dimensions. Its weight would depend upon the kind of hay, its degree of moisture, dryness, compactness, &c.

Copying Articles from the Agriculturist without giving Credit.—Lancaster County Farmer.—Why not give the papers from which you copied these articles, credit then? If you did not know that they belonged to the Agriculturist, you might suppose they belonged to the papers from which you copied, and this would have given us a clue to those papers which first proved culpable.

ACKNOWLEDGEMENTS.—From John Lewis, of Llangollen, Ky., a pamphlet on his Patent Safety Mask, or Prophylactic Protector from Diseases produced by Contagion, Infection, and Malaria; Constitution and Bye-Laws of the St. Louis Horticultural Society; and the Address delivered at the Annual Show of the N. Y. State Agricultural Society, at Buffalo, in September last, by Professor J. P. Norton; also, a beautiful sample of long wool, from J. C. Spencer, of Erie, Pa, which will be more particularly noticed in our next.

FOREIGN PERIODICAL LITERATURE.

THE subscribers reprint and publish the following Periodicals:—

The London Quarterly Review, }  
The Edinburgh Review, } Quarterly  
The Westminster Review, }  
The North British Review, }  
Blackwood's Edinburgh Magazine—Monthly

TERMS.—PAYMENT IN ADVANCE.

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For all four of the Reviews,.....8 " "  
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For Blackwood and the four Reviews, 10 " "

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RECENTLY discovered in Ohio, a most admirable and effective preservative from the effects of the weather, and preventive of fire, becoming in a short time of the consistence and qualities of slate itself. For Manufactories, Railroad Depôts, Roofs of all descriptions, and Public Buildings, it is invaluable. For an account of this paint, see p. 29, of the present number. For sale by the hundred, barrel, or ton, by WM. H. STARR, general agent for the proprietor, No. 67 Beekman Street, New York. j3t

PERUVIAN GUANO

FOR Sale, at Bating Hollow, Long Island, by  
jy3t AZEL DOWNS.

**MINER'S EQUILATERAL BEE HIVE.**

THE subscriber has constructed a Bee-Hive, denominated as above, of peculiar merit. A partial idea of its beauty of appearance may be had, from the hives shown in the engraving at page 56. The design is entirely original, and the whole is based on the true principles of the natural economy of the honey bee; its leading feature of utility is, however, the *great facility of managing the supers in the chamber*. No hive can possibly excel it on this point; nor in any other, as the subscriber fully believes. This hive is the most beautiful in its *tout ensemble*, of any that has ever yet appeared.

The price, by the single hive, is \$5; and sent to any part of the United States, giving the purchaser the right to make any number of hives, that he may desire, for his *own personal use*; and by the dozen, to sell again, or otherwise a very large discount will be made, according to the number wanted. For the benefit of gentlemen residing at a distance, where hives cannot be conveniently sent, *full and ample drawings* have been made, and engraved, showing *every part of the hive*, as well as its whole complete appearance, so that any joiner can construct it, just as well as if a *real* hive were before him. Besides this, a pamphlet of twelve pages, giving the rules of management complete for this hive, will be sent to any address on the receipt of ONE DOLLAR, and the right to make as above guaranteed. The particulars of the above valuable hive will not appear in the subscriber's new work on bees, now in press. Address,

T. B. MINER,  
No. 40 Peck Slip, N. Y.

**A GOOD BOOK COMING!****COLE'S AMERICAN FRUIT BOOK.**

S. W. COLE, Esq., author of the popular work entitled *The American Veterinarian*, of which 22,000 copies have already been published, has, after years of patient labor and close investigation, completed his great work, entitled *Cole's American Fruit Book*, a work which we believe is destined to have a more widely-extended circulation than any similar work ever before offered to the American public. We believe so for the following reasons:—

First—It is a mature work and a practical one, one on which Mr. Cole has spent many years of study and close examination, and knowing the wants of the community has met those wants, in a plain, concise, and familiar manner, avoiding technicalities, and ultra scientific specifications and definitions, useful only to the few—made a work intelligible to all. It will be emphatically a book for the people.

Secondly—It will have an unprecedented sale on account of its cheapness. It will make a volume of 288 closely-printed pages. Illustrated with over one hundred beautifully-executed engravings, by Brown, and will be sold for 50 cents, firmly bound in leather, and 62½ cents in fancy cloth, with gilt backs. It will contain full directions for raising, propagating, and managing fruit trees, shrubs and plants, with a description of the best varieties of Fruit, embracing several new and valuable kinds; embellished with engravings, and outlines of fruit trees, and various other designs, emphatically a book for everybody. As well for the man who eats fruit as for him who raises it. This valuable work will be published early in February.

100 agents, active, intelligent, and honest, are wanted to sell this book, in every state in the Union. A cash capital of from \$25 to \$50 will be necessary. Address (post paid), the publishers, John P. Jewett & Co., 23 Cornhill, Boston.

It is a rare chance for agents to make money.

C. M. SAXTON, No. 121 Fulton Street, New York, general agent for the publishers. 33t.

**POUDRETTE.**

THE LODI MANUFACTURING CO. offer their new and improved Poudrette, for sale at their usual rates—1 bbl. \$2; 3 bbls. \$5, and \$1.50 per barrel for any quantity over 7 barrels, delivered free of expense, on board of vessels in New York. At the factory, where vessels, drawing eight feet of water can come, it will be sold at 25 cents per bushel.

The expense per acre in manuring corn with Poudrette, will not amount to more than \$4, reckoning 25 cents per bbl., freight and all the necessary labor included. On land previously manured, or good sward land, one gill to the hill is sufficient; on poor ground, a good crop can be raised by one gill to the hill at planting, and one at the last hoeing. The cost in *labor alone*, of manuring in the hill with barn-yard manure, will amount to more than the first cost of Poudrette, with all the freight and charges added; and the effects of this manure are quicker; the corn grows more vigorously, and comes to maturity earlier. A fair trial, *however small*, is respectfully solicited.

Apply, if by letter, post paid, to the LODI MANUFACTURING CO., 51 Liberty st., New York. 33t.

**PREMIUM HAY AND STRAW CUTTERS.**

NEW and splendid Rotary Cylinder Straw Cutters, *single, strong, and easily worked*. For sale at reduced prices by  
A. B. ALLEN & CO., 189 and 191 Water street, N. Y.

**NEW ORLEANS AGRICULTURAL WAREHOUSE**  
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**FOR SALE**—A large assortment of Plows, Harrows, Fanning Mills, Corn Shellers, Corn and Cob Crushers, Straw Cutters, Ox Shovels, Ox Yokes, Grain Threshers, Corn Mills, Axes, Hoes, Shovels, & all other Agricultural Implements. Also—Gardening Tools, Guano, Plaster, Rock Salt, &c., &c. Orders will be executed for every article wanted by planters.  
S. FRANKLIN, Agent.

**BOOKS ON AGRICULTURE, &c., &c.**

For sale at the Office of the American Agriculturist.

AMERICAN Farmer's Encyclopedia. \$3, in leather.  
American Shepherd, by Morrell. \$1.  
American Agriculture, by Allen. \$1.  
American Poultryer's Companion, by Bement. \$1.  
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